THE BUILDER

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COLOUR IN OUR STREETS.

THE issues which lie before those who have at heart the improved conditions of the poorer classes of our population are serious enough, but that is no reason why they should not be faced with courage and persistency. Many able minds have been, and will continue to be, devoted to the task, and deserve every encouragement we can give. Driving into London the other day through some ten miles of suburban areas of the most dreary and depressing aspect, the thought crossed our mind that if our roadway had been lined with buildings of Tudor or even Georgian times the journey would probably have been one of varying interest and pleasure the whole way. The last time we were in Edmonton there were enough Georgian red brick buildings left on the road frontages to show what a contrast was presented by the traditional type of building then erected to the vulgar, characterless buildings of the present day. Something that we feel to be pleasurable and good seemed to come naturally and easily in those times, and it was a something which we look for in vain to-day. Coming directly after this experience of depression and regret, we felt doubly interested in the following passage from a "Plea for Colour" by the Right Hon. J. R. Clynes:—

"The English town of Tudor times must have presented a gay and vari-coloured aspect. The weathered red tiles, timbered fronts, and painted escutcheons and shop signs gave to the narrow, cobbled thoroughfares a many-tinted background. It was only with the arrival of the industrial revolution and crude utilitarianism of the nineteenth century that the love of colour was crushed out of the British people, and our large centres of population became the leaden-hued and depressing huddle of sombre buildings we know too well."

We feel that this plea for colour in city life by Mr. Clynes is most welcome and well-timed, and, doubtless, everybody will be fully in agreement with him. But it is our misfortune that the remedy for our miserable and depressing thoroughfares is not likely to be forthcoming in an age of feverish industrialism like the present. Only the other day we were lamenting the beauties of an old Cotswold village being impossible for the toiling thousands of our poorer classes to-day. They may be reaping many of the patent advantages of modern life, but it is at a high cost as regards the beautiful amenities of earlier times. We agree with nearly all Mr. Clynes has to say in his plea for the added charm and beauty which we might find in aiming at good colour effects, and it is worth remembering that improved colour conditions are more easily to be attained than the more austere and difficult charm of good forms and outlines. We have only to imagine what a transformation would come over London if the whole of its buildings could be clothed in white and only enlivened here and there by sparing relief of colour. The whole city would be almost transformed into fairyland. But whilst dreams have a joy of their own, we ought to make a serious endeavour to seek some practical methods for the relief of our city surroundings from their present unhappy conditions. We cannot by a magic wand remove the influences which have brought about the present state of affairs, but we are not entirely hopeless therefor. Why should not our municipalities set up some sort of committees, whose sole object would be to brighten and improve the surroundings and conditions of life in our towns and cities? There are those in every community who have real ability to help in this way, and would take a pleasure in devoting their services to the public good. We might make many mistakes, and the progress might be slow, but the very effort would bring with it means of enlightenment and help, and, at any rate, we should all be encouraged in the wise belief that the life is more than meat and the body than raiment.

It is always doubtful how far our observations may guide us to a fair conclusion as to the capacities of any body of professional men, and we may be quite sure that the drawbacks and failures of modern street architecture in this country cannot be accounted for by the lack of architectural ability. There is a good deal of signal ability amongst our modern architects, but it is only occasionally that our best men get a chance to show what they can do, the bulk of our modern work being secured by those who have no marked capacity for doing anything above the commonplace. Still, Mr. Clynes is not far from the truth when he says: "With the ingrained national distrust of the bolder use of colour British architects and builders are slow to realise the remarkable diversity in decorative possibilities which modern processes for the production of ceramics have placed in their hands." In the adoption of colour treatment it must, however, be remembered that permanent colour decoration in our streets can only be satisfactory if the colour design is really good and that the alternative use of painted decoration does allow for change of effect which from various causes may be desirable. Two recent competitions instituted for the purpose of directing attention to the possibilities of coloured decoration in our streets indicate a movement towards better things, and possibly one of the Institute student competitions might very well be always allotted to such a subject. We welcome the suggestions and criticisms of Mr. Clynes and only hope they may bear fruit. He rightly points out that even gradations and shades of a single colour would perceptibly mitigate the dreariness and depression which we have almost come to look upon as a necessary evil. We cannot do better than quote here his concluding remarks:—

"If our streets and buildings presented to the citizen's eye the variety and beauty which spring from æsthetic employment of harmonious colouring, the whole tone of our industrial population would be beneficially affected. A light-hearted and cheery temper would be stimulated which would not merely lighten the burden of the daily task and eliminate a good deal of the friction, but insensibly educate eye and brain and restore to our people some measure of that artistic perception of which they were robbed a hundred years ago by the crudities of the industrial revolution."

That colour has a definite effect on our mental state cannot be denied. This effect is often subconscious, but it is always there, often quiescent, but ready to leap into active being on the right provocation. A pink frock, a purple thunder-cloud, a sparkling yellow wine, a sombre funereal procession, a wonderful blue sky, a gorgeous sunset, a Swiss sunrise—endless are the appeals to our sense of beauty in colour. But our city streets are for the most part dull and dark, and clever colour advertisements are a more frequent incentive to delight than the buildings in our streets. There is a pleasant charm in dull greys and reds, but when we have so many miles of it without alloy we cannot avoid such delightful thoughts as to what an entirely white London would be, relieved only by lead spires, golden domes, green trees and purple roads.

NOTES.

The Royal Gold Medallist.

SIR JOHN BURNET has already received much recognition of his brilliant abilities, and now the bestowal of the Royal Gold Medal puts that seal on his work which, as an architect, he will probably value most of all. We must add our word of congratulation, for the appreciation with which this honour will be regarded cannot but be unanimous and sincere amongst his brother architects. His attainments have certainly been of an exceptional kind, and it is in regarding such a full and busy life as his that we come to lament the inadequacy of man's time-limit to realise all the possibilities of his talents.

L.C.C. Housing.

THE Chadwick Lecture delivered at the R.I.B.A. galleries, on Thursday last week, by Mr. Topham Forrest, Chief Architect to the London County Council, was addressed to an unusually appreciative audience, and the Chadwick Trustees are to be congratulated upon selecting so vital and important a subject. The lecturer suggested that people should make a point of visiting the great housing schemes, and we would add that the speculative builder in particular would do well to examine them carefully and to see that his houses are designed on the same architectural principles.

Becontree.

THIS immense scheme was well illustrated by lay-out, plans of houses, and views, but we should have liked to have known what the Council intend to do as regards the 150 ft. shop reservations that line the main arterial roads. If they mean to allow shops to be put up without adequate supervision as to design, it will reduce the town of Becontree (the greatest venture of the kind that has ever been attempted) to a condition in which the housing at the back will illustrate thought, proportion, and design, while the frontages to the main streets, the parts most exposed to view, will show the chaos and ugliness with which we are familiar. We cannot imagine that the Council will be so short-sighted as to allow this, and we hope they will exercise the most drastic and careful supervision as to the designs of shops and other buildings; but we are uneasy, and should like an assurance on this point.

Sir Charles Ruthen's Figures.

SIR CHARLES RUTHEN, in proposing the vote of thanks, began by saying that it was usually accepted that figures could prove anything, and he proceeded, by producing some figures, to verify this saying. All will agree that the great drop in the cost of houses was due to the removal of an excessive demand upon the resources of the building trade, but Sir Charles, in order to show to what an extent prices had dropped, read out a list of figures of tenders accepted by the Ministry of Health. Seeing that the Ministry for many months past have approved nothing, except a very few tenders that were abnormally low, it is manifestly absurd to compare the average of these figures with the average obtaining when the Ministry were approving tenders at the rate of a thousand or so a week. It is like comparing the average height to-day of the ten shortest men in a club with the average height of the whole club two years ago, and saying that the discrepancy proves that the members of the club have dwindled in stature. We would like Sir Charles to publish a statement showing, not only the average costs of approved tenders prevailing since the Government scheme was instituted, but also, side by side, the number of houses that were taken to work out each figure of average cost. We could then form some opinion of the value of these figures by making allowance for the special selection of low tenders.

More Fifteenth-century Panels.

MR. CLIFFORD SMITH, at a meeting of the Society of Antiquaries, which he addressed, gave an interesting account and exhibited a number of fifteenth-century painted panels from the destroyed rood screen of Nayland Church, Suffolk. He explained that the rood-screen was taken down apparently in the eighteenth century, or earlier, but eight of the panels from its base were saved. They were roughly fixed at some later date to battens, and hung, until quite recently, on the wall of the vestry. The panels are also interesting as showing some of the mutilations which took place in the time of Henry VIII, when the Papal supremacy was denied. The figures represented are the English saints, such as St. Cuthbert, St. Oswald, St. Edmund, &c. The panels will be returned to the church mounted on a plain oak background and in a simple framing. It is proposed to have them set up in a safe and conspicuous position in the chancel.

Clearing Albert-square, Manchester.

WITHOUT entering into the merits of the decision to remove the Prince Albert Memorial, in reference to which a correspondent writes on p. 269, and other statues from Albert-square to make room for the new war memorial, it does raise the question of the permanence of such memorials. If age by age we

Shrine of Syanobi in Bronze, by Lorenzo Ghilberti, at Florence Cathedral.

Strand-on-the-Green, Chiswick: Looking down the River.

undo the work of former ages, if there is no security for the pious acts of our predecessors; if the considered judgment of the past is, even within a few years, to be overturned by the fashion of the present, it creates an unfortunate impression of the instability and want of permanence governing our acts. Perhaps public memorials tend to increase faster than the wisdom to endow them with what is precious enough to secure preservation. But if we raise up memorials to our public men and commemorate our national deeds with no better security than exists at present, it suggests that it might be wiser to be slower in erecting them at all, in order that when we do so we may so shape them that they may be raised in our estimation above the changes of public opinion and a national outlook which leaves nothing secure. It cannot be regarded as denoting a very healthy state when there is no permanence in our work, and we should check the tendency of present desires to displace those larger claims which life lays upon us.

The British Industries Fair, 1923.

THIS Fair promises to compare more than favourably with its predecessors, and has become an important annual event. Established on thoroughly practical lines it has become a valuable instrument for promoting the trade of the Empire. The efficiency of its organisation is remarkable, including every facility for the buyer, who is provided at the Fair with postal and telephonic facilities, writing rooms, a typewriting bureau, interpreters, and offices for the supply of commercial information. The exhibition, which we shall review in a later issue, will be held at the White City, Shepherd's Bush, and will be open on February 19 until March 2. The Fair, which we believe to be now entirely self-supporting, gives a most valuable impulse to the trade of the Empire by its comprehensive display, and the Department of Overseas Trade is to be congratulated on the efficiency of its organisation and the courtesy and helpfulness of its officials.

The Saving of London.

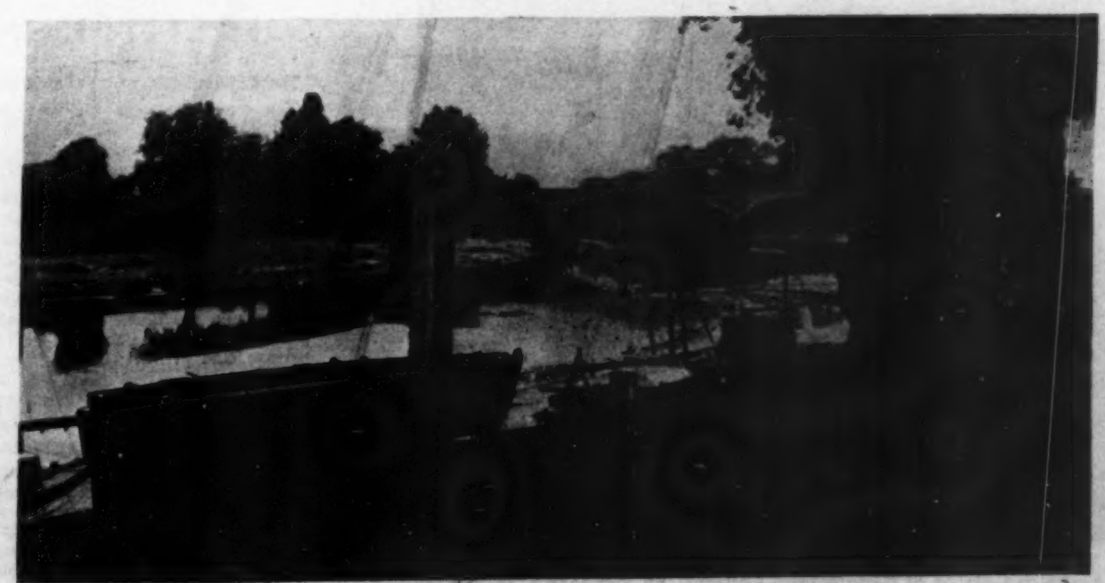
THERE could hardly be a more convincing proof for the need of a better control in the development of London than the proposed innovation against the amenity of Edwardes-square, Kensington. It has been well said that anything less in accordance with the principles of town planning cannot be conceived. Both the situation of the proposed cinema and its dimensions are utterly out of keeping with its surroundings. Could not the building by-laws afford some protection against the erection of buildings which either impair or destroy the comfort and convenience of neighbouring holdings? The London County Council can hardly need any meantime for the protection of eighteenth-century London.

The Late Arthur Reid.

WE could wish there were more men in the profession of the character and capacity of the late Arthur H. Reid, of South Africa. He had an essentially sound and discriminative judgment on most affairs which came within his range. He was an ardent promoter of union amongst all architects in the Empire for the object of increasing the powers and opportunities of the profession. During his recent visit to England we felt renewed hopes of good results from his activities which were always exerted with the influence of a very pleasing personality.

Strand-on-the-Green Chiswick.

THERE are few Thames-side residential places close to London left unspoiled, and one of the most interesting and picturesque of all is now threatened. The Chiswick Urban District Council propose to build a concrete wall surmounted by an unclimbable iron fence at the entrance to Strand-on-the-Green, a fascinating river walk dear to artists and lovers of old-world environment. There is a further suggestion to continue the wall almost the entire length of the Strand, but we imagine that such an unnecessary and disastrous proposal is not likely to materialise. The object of the Council is, apparently, to prevent the river overflowing into the road at one point during exceptionally high tides, but we think that this could be effected in other and less expensive ways than that proposed. We understand that a number of residents and others interested are endeavouring to induce the Council to re-consider the matter, and we hope, in the public interest, their efforts will succeed.



Strand-on-the-Green, Chiswick: Looking up the River and showing the Old Trees proposed to be demolished.

GENERAL NEWS.

Professional Announcements.

Mr. J. Woodfield Smith, Lic.R.I.B.A, has removed to 14, St. Peter's-square, Manchester (Telephone, Central 112).

The Wandsworth, Wimbledon and Epsom District Gas Company have appointed Mr. R. N. Stroyer, of 4, Westminster Palace-gardens, as consultant in connection with various reinforced concrete works at their Wandsworth establishment.

Royal Academy Summer Exhibition.

The Summer Exhibition of the Royal Academy this year opens on May 7 and closes on August 11. The days for receiving works are as follows:—Water colours, pastels, miniatures, black-and-white drawings, engravings, and architectural drawings, March 29; oil paintings, March 31 and April 3; sculpture, April 4. The hours for the reception of works are from 8 a.m. to 10 p.m. (except March 21, when the hours are from 8 a.m. to 2 p.m.). Labels and forms may be obtained, during the month of March only, from the Secretary, Burlington House, W. 1.

L.C.C. and City Churches.

At Tuesday's meeting of the London County Council, Mr. J. P. Blake asked the Chairman of the Local Government, Records and Museums Committee whether he was aware of the revival of the attack upon the Wren churches in the City of London, and whether the Committee would consider the possibility of their being scheduled as national monuments, as would be the practice in Italy and other countries, and so preserving them from destruction.—Mr. Andrew T. Taylor (Chairman of the Committee) replied that the Committee would take into consideration the suggestion that the churches should be scheduled as national monuments. Ecclesiastical buildings which were for the time being used for ecclesiastical purposes did not, however, come within the definition of "monument" in the Ancient Monuments Consolidation and Amendment Act, 1913, and it was doubtful whether there was power to schedule any of the City churches as "ancient monuments." It was understood that the question of amending the Act had been under consideration by H.M. Office of Works. Most of the 19 churches proposed to be destroyed or removed were the work of Wren, whose bi-centenary was to be held this month, and it would be most regrettable if it were to be signalised by the wilful destruction of any of his works.

London County Council and "Up-and-Down" Clauses.

At the last meeting of the London County Council, the General Purposes Committee reported that they had had under consideration the question whether any alteration was desirable in the practice of including in contracts "up-and-down" clauses in respect of wages and materials. The Committee was of opinion that economic conditions had now become sufficiently stable to allow of the elimination of "up-and-down" clauses as regarded both labour and materials. They considered that if contractors were required to take all risks in regard to the prices of materials, an element of speculation would be introduced which would probably influence favourably the offers submitted, and would create an incentive to contractors to secure keener competition for their supplies. They therefore proposed that, as a general principle, no contract to which the Council was a party should contain any provision for an "up-and-down" clause. It was possible that in the case of a contract of exceptional magnitude or extent over a considerable period a departure from this general principle might be desirable, in which case the authority of the Council to include an "up-and-down" clause would have to be obtained. They recommended "that in future contracts entered into by the Council no provision be made for an adjustment of the contract price in respect of any variations in rates of wages and hours of labour or the price of materials that may occur during the currency of the contract."—The recommendation was adopted.

Sir John Soane's Fund.

The trustees of Sir John Soane's Fund will meet at the Museum, 13, Lincoln's Inn-fields, W.C. 2, on Wednesday, March 14, to distribute the dividends which have accrued since January from the sum of £5,000 2½ per cent. bank annuities invested by Sir John Soane, among distressed architects and widows and children of deceased architects left in distressed circumstances. Forms of application may be had at the Museum, and must be filled up and delivered there on or before March 1.

Architects' and Surveyors' Assistants' Professional Union.

On Saturday, February 24, the members of the Metropolitan Branch of the Architects' and Surveyors' Assistants' Professional Union are making a visit to the Nurses' and Medical Home portion of University College Hospital, Huntley-street, to view the reinforced concrete work by the British Reinforced Concrete Engineering Co., Ltd. The party will meet at the site at 2.15 p.m. Admission is free, and tea will be provided.

R.I.B.A. Minutes.

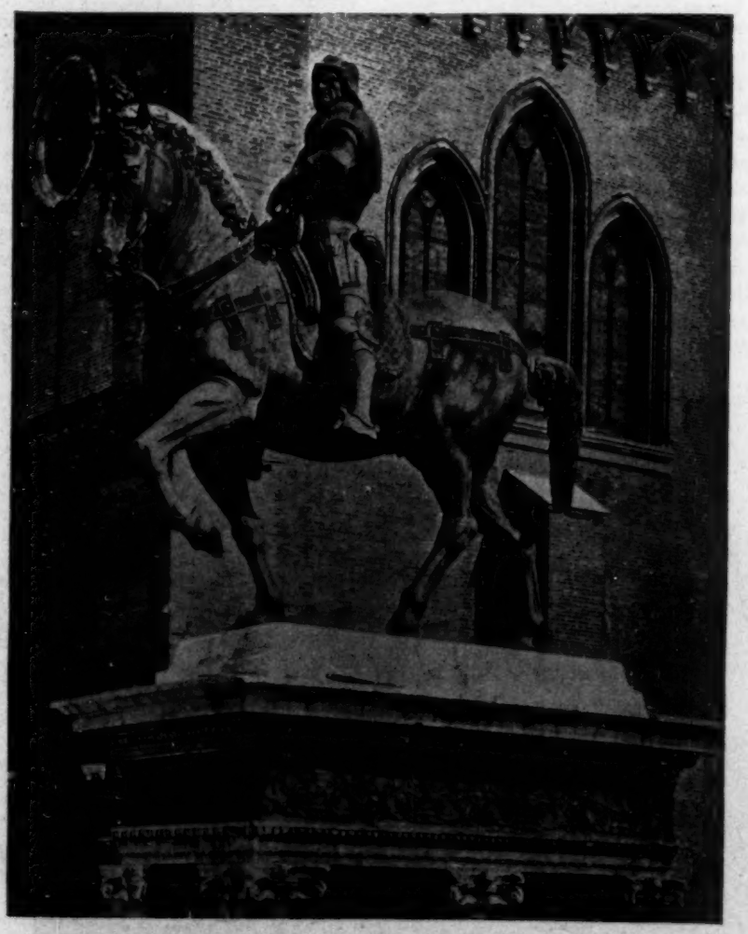
The following notes are from the Minutes of the Council meeting held on February 5:—

MASONIC MEMORIAL BUILDING.—A communication has been sent to Grand Lodge urging that there should be an open architectural competition for the new Memorial Building, and that a deputation should be received.

REGISTRATION BILL.—The Registration Committee was instructed to consider the action to be taken to meet the views expressed at the general meeting on January 29.

R.I.B.A. Public Lectures.

In connection with the programme of public lectures to be held at the Royal Institute of British Architects (given in full in our last issue), the dates of the first two have been altered. Mr. Alfred Gotch's lecture on "A Note on the Life of Sir Christopher Wren" will be delivered on February 22, and Sir Ryland Adkins' lecture on "A Layman's Question" will be given on March 1.



Equestrian Statue of Bartolommeo Colleoni, by Verrocchio, at Venice.

COMPETITION NEWS.

"The Builder" Cost of Building Competitions.

The sending-in date for *The Builder* Cost of Building Competition No. 1 is March 1. Numerous questions relating to the competition were answered in our issue for February 9.

Polytechnic Institute of Reval (Esthonia).

An international competition has been opened at Reval (Esthonia) for designs for the buildings for the Polytechnic Institute of Reval. Plans must arrive not later than April 15, 1923, and should be addressed to the Director of the Polytechnic Institute, Reval, Esthonia. The prizes will be as follows: 1st Prize, 200,000 marks; 2nd prize, 150,000 marks; 3rd prize, 100,000 marks. Particulars can be obtained at the Office National du Commerce Exterieur, 22, Avenue Victor Emmanuel III, Paris (8e).

Ryde Pavilion Competition.

The awards in the above competition are as follows:—First Premium: Messrs. Thomas Spencer, A.R.I.B.A., and M. R. Martin, A.R.I.B.A., Putney; Second Premium: Messrs. P. J. Newby Vincent and D. West, Southampton; Third Premium: Mr. Geo. T. Morris, M.C.I., London.

CORRESPONDENCE.

Proposed Brutal Vandalism in Manchester.

SIR,—It has been proposed by the City Council to take down the splendidly designed Albert Memorial and the group of statues facing the Town Hall, to provide room for a war memorial, for which a dozen more suitable sites are available.

The public has shown itself absolutely apathetic and indifferent. It has taken many months to scrape up £10,000, and if it had not been for the accidental receipt of £1,000, the balance of some old fund raised for other purposes, the £10,000 asked for would probably never have been collected. Several large amounts subscribed by a handful of rich firms form the bulk of the fund; the general public has subscribed a minimum amount and appears to be quite indifferent. There are already a score of memorials in and near Manchester. The Albert Memorial is the finest and best designed monument in the provinces, an artistic treasure of which the city ought to be proud. If the donors could have foreseen that within five decades vandals would propose to remove it, it would never have been presented to the city. It was given for this special site, the most prominent one in the city; Albert-square had just been formed out of a maze of small streets. As soon as the proposal to remove the Albert Memorial was made, I wrote to the editor of the *Manchester Guardian* that the mortar joints were so thin and the mortar so hard it would be quite impossible to take the structure to pieces without smashing the stonework, but the editor suppressed my letter and callously left the memorial to its fate.

The statues in the square have been designed and modelled by the best brains in the country, regardless of expense; it is safe to prophesy that the proposed memorial, compared with them, will be artistically inferior and quite unsuited for so prominent a site. The next generation will probably treat it precisely as the City Council proposes to treat the splendid group now facing the Town Hall and relegate it to one of the parks, possibly alongside the guns, which are slowly rusting away in one of them.

£10,000 at present prices only represents £4,444; what sort of a memorial is likely to be obtained to ornament the large square in front of Waterhouse's Town Hall, in lieu of the present monuments? The proposed vandalism is a disgrace to the City Council collectively and individually, and if persisted in will make them and the city ridiculous. The Albert Memorial and the other statues form a group the Council should be proud to possess. No one with £4,000 or £5,000 at command, at present prices, could design anything better and more suitable for the site.

T. SINGTON.

Marseilles Roofing Tiles.

SIR,—Mr. F. A. Langley's amusingly frank letter published in your issue of February 9 is quite thought-provoking. The ultimate cost of the foreign tile used in this country really is very considerably higher than that of the best British article, but neither architects nor builders are obliged to consider that.

Mr. Langley's reference to free trade is a "red herring," since not at any point does this matter touch the principle of free trade.

I. MORRIS.

Registration of Architects and the Architectural Assistants.

SIR,—With reference to Mr. McLachlan's letter published in your issue of February 9, the draft Bill was drawn up with a view to making no distinction between assistants and principals; both would go on the register. Of course, all District Surveyors would have been entitled to be placed on the register, and if the draft did not make that clear, or any point raised by Mr. McLachlan, it could have been amended; that was one of the objects of submitting it to the general body of the Institute. Mr. McLachlan refers to "practising architects," and writes, "It will be obvious that the Draft Bill has been drawn up in favour of this last class of architect." I can assure him such a suggestion was never made during the meetings of the Committee, and I am certain nothing was farther from our thoughts.

The Institute was founded in the interest of architecture, and not in the interests of architects, either principals or assistants, and registration should be promoted with that view, which was the object of the draft Bill. Registration means unification and cannot be carried out without cost sufficient to cover expenses, which should mean a small annual subscription.

Your correspondent complains that the Council does not meet in the evening; if any alteration were proposed, I am sure it would be opposed by the country members. There are fourteen on the present Council, and, if they do not wait for the general meeting in the evening most of them can return home the same day and avoid staying a night in London; in any case, one visit is sufficient for the two meetings.

I was so glad to see Mr. McLachlan end his letter with these words, "Any scheme which diminishes the value of the Institute Diploma must be abortive." That is the great principle of the R.I.B.A. Defence League, and the members it recommended and who were elected on the present Council.

SIDNEY PERKS.

The Cure of Sound Transmission.

SIR,—My advice has been asked in the following case. In some recently erected houses the party walls consist of two thicknesses of 4 in. breeze blocks with a 2 in. cavity.

These walls have proved to transmit sound from one house to another in a marked degree. A cure is sought which will prevent the nuisance without undue disturbance of the premises.

It has been suggested that sand should be poured into the cavity from above the ceiling level of first floor.

Should any of your readers have found an effective way of dealing with such a difficulty, their suggestions would be welcomed.

H. FRANKLYN MURRELL.

35, Bedford-row, W.C.

Architects' Fees for Abandoned Housing.

SIR,—In the vexed question of architects' fees for abandoned housing schemes we find that very few architects appear to be aware of a published statement of the Ministry in their official journal *Housing* bearing on this.

In the issue of September 13, 1919, p. 66, there is a query on the point of abandoned schemes. The Ministry's reply is as follows: "The fees should be adjusted in accordance with the custom of the profession." This considerably weakens their contention that when conditions of employment of architects were laid down by memoranda 4 and 31 they had not considered or contemplated any abandonment of schemes. We gather that the R.I.B.A. committee were not themselves aware of this in their negotiation with the Ministry. The matter may be of assistance to architects still wrestling with this problem.

ORPHOOT & WHITING.

Bideford.

The "Chicago Tribune" Competition.

Professor Eliel Saarinen, the Finnish architect, who won the second prize in the recent *Chicago Tribune* competition for designs for their new office buildings, has had his premiated designs accepted for use in the building of a business emporium to be started at once in Chicago. Professor Saarinen has been invited by the American-owning company to direct the erection of the stores, after his design and plans, which he has agreed to do.

THE ADELPHI.*

THIS book is intended for the general reader, as well as for the antiquarian and the lover of London. The history of the Adelphi and its immediate neighbourhood is particularly interesting at this time when the buildings are threatened with destruction. The author relates "the romantic story of kings and queens, of prelates and princes, of book-writers and booksellers, of artists, architects and actors, and of other players on life's fitful stage who, for six centuries and a half, have contributed to one of the most interesting chapters in the history of London."

Particularly interesting to architects is chapter IV, in which is described the transformation of the ruins of Durham House and yard into the present Adelphi by the Brothers Adam. They had to contend with many difficulties which would have daunted most architects, and it is evident they possessed in a remarkable degree what was termed, even in those days, "practical knowledge and skill." In order to embank the river, it was necessary to obtain a special Act of Parliament, and, apparently, it was vigorously opposed. Even then misfortune dogged the footsteps of the courageous brothers, for they became involved in financial difficulties, and eventually had to complete their buildings by raising money by means of a public lottery. The necessary Act of Parliament was obtained for the disposal of the property by lottery, and the description of the proceedings for the sale of tickets and the subsequent lottery is both amusing and interesting. There were 4,370 tickets at £50, making £218,500; and the prizes numbered 108. The newspapers of the period were full of information and advertisements respecting the lottery, and in this way a large amount of publicity was afforded the brothers Adam. As a form of "oblique advertising" the procedure is interesting from a professional point of view, and adds a certain amount of piquancy to the following extract taken from a pamphlet published by the Adams on January 18, 1774:—

"As the Messrs. Adam engaged in this undertaking, more from an enthusiasm of their own art than from a view of profit; at the same time being eager to point out a way to public utility, though even at an extraordinary expense; they will be perfectly satisfied if they should only draw, from this lottery, the money laid out by them on a work which, they readily confess, they have found to be too great for their private fortunes."

Speculative building—for apparently the Adelphi was no other—has been responsible for many architectural evils, nevertheless the brothers Adam have left us this fine group of buildings as an exception to prove the rule.

It is interesting to note that the small area known as the "Adelphi" received this name in 1772, from the brothers Adam, who adopted the meaning of a Greek word for their great work, and that prior to this Robert and James Adam had signed their architectural drawings "Adelphi." We regret to hear of the recent death of the author of this interesting book.

Roman York.

The Rev. Angelo Raine, B.A., vicar of Dringhouses, lecturing under the auspices of the Yorkshire Architectural and York Archæological Society, in the Tempest Anderson Hall, York, recently, on "Roman York," made a plea for the erection of a Roman Hall in the city, in order that the finest collection of Roman antiquities there was in the whole of Britain could be properly housed. Mr. Raine described in an interesting manner some of the chief characteristics of Roman York, and he criticised the way in which the exhibits of that period were at present housed.

* *A Literary History of the Adelphi and its Neighbourhood.* By AUSTIN BRERETON. (New edition, illustrated. London: T. Fisher Unwin. Pp. 295. Price 10s. 6d. net.)

THEATRES AND THEIR DESIGN.

We have received the following letter from Mr. Robert Cromie, F.R.I.B.A., of Paris, with reference to Mr. Rutherston's address at a recent meeting of the Architectural Association:—

SIR,—As one of the architects engaged on the rebuilding of the Theatre Royal, Drury-lane, I beg to be allowed to correct an error made by Mr. Rutherston at the end of his address to the Architectural Association, and reported in your issue for February 2.

Mr. Rutherston winds up his thin dissertation by remarking that Drury-lane was "pulled about because it was demanded that every single piece of ground should represent so much money." Had he been better informed he would know that the theatre was not "pulled about" so as to obtain extra seating capacity, as the accommodation is practically unaltered; but because about 40 per cent. of the patrons of the old house could not see the stage satisfactorily, as indeed was common knowledge. He should learn that "the sort of spirit they (Mr. Rutherston?) were up against" is the spirit that leads shareholders to spend £150,000, of their own accord, in modernising a theatre which was dangerous, uncomfortable, unventilated, and possessing every fault that every theatre not built by specialists usually possesses.

Mr. Rutherston's statement, however, is excusable, but that the President of the A.A., Mr. Stanley Hamp, should have remarked that the change was deplorable owing to the selection of the wrong people, *i.e.*, architects, is *not*. Is one to infer that Mr. Hamp should have been selected? Or are Presidents now permitted to use their chairs for the condemnation of the work of other architects?

Thanks are due to Mr. F. J. Darton and Mr. G. Norman for putting in a word of common sense in the discussion. "How was the architect to learn" the actual design of a theatre? The reply is by twenty years or so of struggling, often akin to actual misery; generally by subjugating every true instinct, every architectural taste, to the cut-and-shut ideas of the front-of-house magnate who is often so imbued with his own notions of what the public is supposed to like that the architect is forced to take a very back seat—or back out. It *is* all very "worldly and interested." There is certainly one sure way of how *not* to learn, and that is by studying theatre design in an architectural school. To an expert, the glorious would-be beaux-arts pomposity, which if built would cost millions and hold as many as a parish church, is as futile as its sight-lines are impossible.

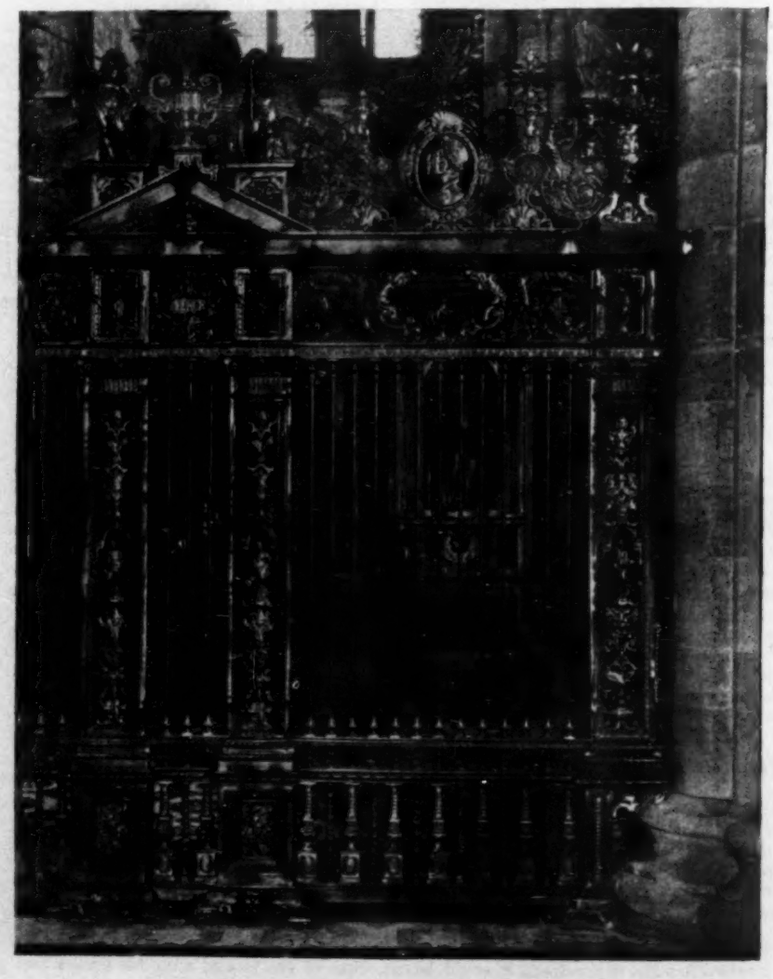
There is a growing tendency among a certain class of architects to imagine that it is our duty to design everything from scenery to altar-cloths, which is only counterbalanced by the ultra-practical man who seems to think that no architect is worthy of the name unless he can handle a jack-plane. As a matter of fact, what the profession is suffering from is a lack of ordinary common sense. And the sort of oration delivered by Mr. Rutherston is becoming only too frequent—and does little to help.

Mr. Stanley Hamp is not alone in hoping there will be a National Theatre. That it would be a financial failure is a foregone conclusion, but one would imagine that to certain members of the profession other people's financial failure is of little consequence judging by the way they prate about art.

That the National Theatre would be an architectural success is assured provided the "right people" are chosen to design it. But who is to choose? Who, outside the few practical theatre builders, is capable of choosing? Such a theatre would doubtless be the subject of a national competition, and its success as a theatre is more than doubtful, for the simple reason that the number of architects with the necessary qualifications who would compete is too limited. And who could assess? One can imagine a panel of presidents assisted by artist-craftsmen (whatever that may mean) and a few sensible stage-carpenters struggling with a problem with which none of them is conversant and criticising a mass of competitive plans that they hardly understand, manfully endeavouring to arrive at the selection of the right people, and failing ignominiously on account of their own incompetence. It's all very sad.

It has taken 100 years to evolve the modern theatre, and there is no short cut to experience, no tabloid method of acquiring the requisite knowledge. The cinema-building approaches the theatre-building to some extent—yet of all the cinemas in this country constructed by other than specialists there is probably not five per cent. which are properly designed, in spite of beautiful bastard Greek interiors, and wonderful descriptions in the technical press of the heating and ventilation plant—designed by engineers!

Until architects realise that the theatre and the cinema are as much a commercial proposition as the warehouse we shall still hear lamentation. Regent-street is being "pulled about" for much the same purpose as the old theatres—to modernise and realise. Yet one hears little condemnation of the monstrosities erected by eminent architects. The greatest architectural blunder that has ever been committed is the Piccadilly Hotel, and the young idea has always been taught to respect the name of its author, because he was Mr. Norman Shaw. Of the theatres erected by eminent architects there are few: the owners as business men prefer to place the work in the hands of those who have been through this particular mill. That nice little theatre, the "Empire," is doomed—for the simple reason that the cost of modern production cannot play to its ridiculously inadequate capacity. It is a simple matter to capitalise the value of a single seat, but there are so many architects who fail to make the calculation accord with their plans. That the provision of maximum capacity is inimical to a good architectural scheme is still a popular fallacy. And there are still many old theatres whose seating could be increased almost 100 per cent. without disturbing the outer walls, and at the same time allowing more space per seat and giving perfect sight-lines. These old houses were built before the age of specialists, and were planned on the horse-shoe method, with deplorable results, and are invariably unsafe in case of fire. But old theatres are not the only failures. There are others which were placed in the hands of the wrong people. The gallery of Mr. Collcutt's much-admired "Palace" was condemned a few years ago and had to be reconstructed by a theatre-architect. As to Drury-lane, the old house with its archaic arrangements, bad exits, and perfectly scandalous sight-lines, had little pretension to architectural merit. The auditorium decoration was of the very poorest type. Certain parts of the front-of-house decoration were respected, and certain parts speedily rejected. They are not generally regretted. The old theatre was loved for its old associations, but a repetition of the fire that destroyed it in 1809 would hardly tend to endear it in our memory, in spite of Mr. Hamp's deploring its substitution by the "present structure," which unfortunately does not meet with his approval.



Iron Grille in the Certosa, Pavia.

THE ACOUSTICS OF THE AUDITORIUM.

AT University College, University of London, on Thursday last week, Mr. G. A. Sutherland, M.A., gave the first of a series of three lectures on "The Acoustics of the Auditorium."

Mr. Sutherland said in view of its importance to the community the subject had received singularly little attention from physicists in this country. From time to time a more than ordinarily bad case served to focus public attention on the problem, and at such times it was customary to state that the question was one of pure chance to which science had nothing to say. The purpose of those lectures was to dispel the atmosphere of mystery that surrounded the problem and to show that a scientific solution had been found so nearly complete that anything in the nature of an acoustic horror, such as the London County Hall was said to be, was quite inexcusable. Extensive practical use had been made of that solution in America, both in predicting acoustical quality in advance and in removing existing defects.

To understand and apply the method, it was necessary to be acquainted with the nature of sound, and the main phenomena of sound propagation. Sound was a form of energy; it could not be got rid of by being broken up and scattered; it remained audible until it was converted into some other form of energy. It was produced either by a single sharp impact or by a succession of sharp impacts of a vibrating body on the air or some other medium, and was propagated by a form of wave motion, each wave consisting of a condensation of the medium followed by a rarefaction. The ear was affected by such waves when the number of vibrations per second was between 16 and 38,000, but the range of sounds used in music was between 40 and 4,000 vibrations per second. Sounds were musical when the vibrations were periodic or regular, and sounds of different pitches all travelled with the same speed, viz., about 1,120 ft. per second in air at 60 deg. F.

A sound wave proceeded from a point source in ever-widening spheres until it reached the boundary of a medium in which its speed was different. Part of it was reflected back through the first medium and part of it was refracted through the second. The laws of reflection and refraction were well known and definite, and both phenomena played their part in the distribution of sound in an auditorium. With certain shapes of hall it sometimes happened that a reflected set of waves was superposed on a direct set in such a way that condensation fell on condensation and rarefaction on rarefaction. That produced increased intensity. If, however, it happened that the rarefactions of one set fell upon the condensations of another, then the result was silence. That was known as interference and might easily be demonstrated by experiment. The usual result in practice was some points of silence and some excessive loudness. Sound waves would also bend round obstacles; the lower the pitch of the sound, the larger the obstacle round which it would bend. The sound of an explosion readily bent round buildings and blew in the windows of houses on the side farther from the place of the explosion. That bending was known as diffraction, and a consequence of it was that if a wall was to scatter the lowest musical sounds instead of reflecting them regularly, it would have to be coffered to a depth of about three feet. For speech a depth of 3 to 5 ins. would be required.

A sounding body might force another near it to vibrate in unison with it; if the second had the same natural period it would do so readily and strongly. Those forced and sympathetic vibrations played their part in the distribution of sound in an auditorium. Musical tones derived their quality from the fact that they were composite in character, any one tone being made up of a fundamental note which determined its pitch, and a number of other simple notes known as overtones. The presence of these different notes could easily be shown by experiment, and it could be shown that different overtones, or the same overtones with different relative intensities, produced different qualities. Vitruvius ("De Architectura," Liber V, Cap. viii) spoke of dissonance, circumsonance, resonance, and consonance in the theatre. The substitution of the words interference, reverberation, echo, and the retention of the word consonance made his analysis applicable to the problem of the modern auditorium.

With a speaker on an open plain the sound wave spread out roughly as a hemisphere. If a large audience was on the plain the lower part of the wave was soon absorbed and those at the back could not hear. To raise the speaker and place a wall behind him in order to reflect forward the back part of the wave, and to raise the rear seats, produced a great improvement, and the result was, in effect, the Greek theatre. But much of the wave still escaped into the open. Adding walls a roof prevented that escape, and the further addition of galleries to bring part of the audience nearer the front effected a further improvement, and produced the general form of the modern auditorium. The necessary and adequate conditions for satisfactory acoustics were sufficient loudness, freedom from distortion, and freedom from the indistinctness that was caused by the overlapping of successive sounds. A solution of the problem would show how to express such considerations numerically, would state definite desirable values for them, and would also enable them to determine in advance the values they would have in any auditorium whose plans were available.

The sound waves proceeding from a speaker addressing an audience reached the boundaries of a room unless they were absorbed on the way. At the walls they were reflected or transmitted or absorbed in proportions which depended on the nature of the walls. Reflections occurred at least 27 times a second in a room 40 ft. square, the reflections reinforced the original sound and ensured sufficient loudness, which was the characteristic virtue of the modern auditorium. But if the walls were hard there was little absorption at each impact, and the sound would die out very slowly, producing reverberation, which was the commonest defect in modern audience halls.

The Greek theatre, without walls and a roof, did not suffer from reverberation; that was its merit. Its acoustics were good, but not, as was commonly assumed, perfect. With the absence of reverberation there was also absence of sufficient loudness, as the use of resonant vases bore witness.

It was characteristic of the attitude that had been adopted to the whole question that, because vases were supposed to have contributed to the good acoustics of the Greek theatre, they were sometimes employed in buildings to-day, though the defects in the two cases were due to directly opposite conditions. Small wonder if, with so little attempt to appreciate causes, results seemed to be governed by the merest chance.

Bristol Cathedral Renovation Scheme.

The Executive Committee which is charged with the undertaking of the scheme of improvements and repairs to Bristol Cathedral has now received a detailed report of the work which is deemed necessary, which has been prepared by Mr. Roland W. Paul, the Cathedral Architect. In his report, Mr. Paul shows that a considerable amount of work is necessary in various parts of the building. Regarding the restoration of Berkeley Chapel, which Mr. Paul says does not seem to have been used as a chapel since the Dissolution, but which, after filling the purpose of a vestry for some time, has in recent years been used as a choir practice room, this will be available for another purpose owing to the provision of a practice room in the new vestry building. It is proposed that the chapel shall be restored and used as a children's chapel.

NORTHERN ARCHITECTURAL ASSOCIATION.

THE annual dinner of the Northern Architectural Association was held at the County Hotel, Newcastle, recently. The President, Mr. T. R. Milburn, occupied the chair and was supported by Mr. Paul Waterhouse, M.A. (President of the Royal Institute of British Architects), Mr. J. M. Clark (President of the Surveyors' Institution) Mr. Stephen Easten, O.B.E. (Past President of the National Federation of Building Trades' Employers), Mr. R. F. Hindmarsh (President of the Institution of Civil Engineers, Newcastle), Mr. W. E. Stairmand (President of the Northern Counties Federation of Building Trades' Employers), Mr. Henry Bell (President of the Sunderland Building Trades' Employers' Association), Mr. Ian MacAlister (Secretary of the Royal Institute of British Architects), Mr. T. W. Jones, F.S.A. (Vice-President of the Northern Architectural Association), Mr. J. P. Allen (President of the Northern Quantity Surveyors' Association), Mr. R. Burns Dick (Past-President of the Northern Architectural Association), Mr. Wm. Hall (President of the Newcastle and Tyne District Building Trades' Employers' Association), and others.

In proposing the toast, "The Royal Institute of British Architects," Mr. Clark, of Sunderland, said the future of every town depended very materially upon its architecture.

Responding, Mr. Waterhouse described architecture as civilisation with a capital C, as when they spoke of it they were really speaking of the course of human progress and advancement. He quoted the motto, "Fairer cities and healthier citizens," and said that just as a healthy mind grew in a healthy body, so he believed, that the happy citizen grew in the beautiful city, and it was their pleasant business to provide that beauty which the city required.

"The Building Industry" was proposed by Mr. Burns Dick, and responding, Mr. Stephen Easten said he might be expected to say something with reference to the crisis which might arise in the building industry in the immediate future. He asked the assembly to realise that those on the employers' side who were dealing with the subject fully recognised their responsibility. It was as much in the interests of the operatives as of the employers that there should be a proportionate reduction of 20 per cent. If the existing wages were maintained they were penalising the workers, who could not pay the price asked for houses. He devoutly hoped that they would be able to prevent a conflict.

BOOK REVIEW.

English Church Architecture of the Middle Ages. By A FREEMAN SMITH (London: T. Fisher Unwin.) Pp. 83. Price 5s. net.

THIS is an elementary handbook for architectural students. In his introduction the author suggests that the purpose of his handbook is "to explain the origin and use of some of the forms which are presented to the eye of the visitor to these ancient monuments, not as being the result of caprice, or mere æsthetic motives, but as derived originally from a deep conviction of the living truth which their founders professed, and which they attempted to express in all their constructive work."

No one denies the religious spirit which gave us our cathedrals, but we are not convinced that this is the whole explanation of a structural art. It is a subject upon which many excellent books have been written, and it cannot be adequately dealt with in a technical book of this nature. If the meaning of the introductory sentence is slightly obscure, the author makes himself clear when he says that: "In the Early English period knowledge of the true principles of architectural design and construction advanced considerably," and that there is "evidence of improved scientific construction." The book succeeds in its object of conveying an outline of the leading characteristics of Gothic architecture, as found in churches of the Middle Ages in England, and it will also be found useful as an elementary introduction to the study of Gothic architecture.

VAULTS.

(BASED ON THE WORK OF M. GUADET.) BY T. P. BENNETT, F.R.I.B.A.

THE subject of vaults is vast. It is so large that it would require a volume to deal with it completely. But its main elements may perhaps be dealt with in a short article with advantage. Vaults exist in great variety in monumental buildings; everyone is familiar with examples which have excited their admiration. It is true to say that nothing is more beautiful; nothing requires greater knowledge.

The arch has a thrust which is in the direction of the wall, it is but an elementary vault of shallow depth; but the vault proper has a thrust which is necessarily against the side of the wall. In the case of the arch the wall is placed in the best and most advantageous position for resistance; in the case of the vault it is in the least advantageous position. It follows, therefore, that the construction of the vault necessitates the exercise of a large amount of ingenuity in order that stability may be ensured.

In the construction of the vault exact calculations are necessary; too much weight in the vault itself or weight wrongly placed, or in certain cases insufficient weight, will cause destruction.

All vaults are works in conditional equilibrium; their action will cause destruction to the building if some equally permanent resistance is not provided to equalise the thrust. This resistance may be provided in one of two ways:—

(1) The thickness of the walls and piers; the existence of counterforts or of flying buttresses.

(2) Iron or steel ties, which resist by tension the overturning tendency of the walls.

Without entering into the question of stability it is instructive to examine the load lines which result from the action of all the forces called into action by the construction and loading of vaults. If such a load-line is drawn on the section of the vault (Fig. 1) its resultant must fall within the thickness of the wall, and, if no account is taken of the resistance of mortar to tension, within the middle third. A load-line which falls below the intrados of the vault itself indicates liability to crushing; one that falls above, to bursting; and one that falls outside the vertical face of the wall, liability to overturning.

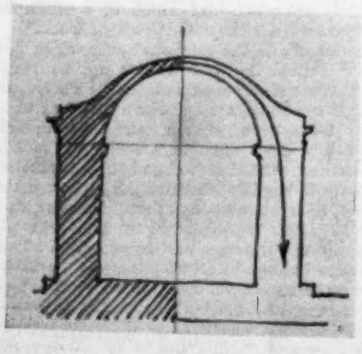


FIG. 1.—THRUST OF A VAULT.

Frequently the material used in the construction of the vault proper is lighter than that used in the piers. The Romans, for example, used pumice-stone in this position. Thrust may be resisted by thrust or by weight which is the result of mass or loading (Fig. 2). There are no rules or proportions which may provide a guide either for the novice or for the *savant*; each case must be examined upon its merits as a work of construction requiring independent calculations.

The vault with the least thrust is that which has the greatest height in proportion to its width. Some of the most famous vaults in historic architecture, with their principal dimensions, are given below:—

Name of Building.	Materials of Construction.	Diameter of Vault.	Thickness of wall at the springing.	Proportion of diameter to the thickness of wall.
		About metres.	About metres.	
The Pantheon, Rome (spherical vault, hollowed walls)	Tiles and concrete	44.60	6.80	.56
The Great Hall, Baths of Caracalla (spherical vault, hollowed walls)	Do.	35.00	6.50	4.66
The Basilica of Constantine (barrel vault)	Do.	24.00	4.20	5.71
The Temple of Venus and Rome (barrel vault)	Do.	20.20	3.00	6.73
Santa Sofia, Constantinople (barrel vault)	Tiles	8.60	2.20	3.99
St. Peter's, Rome (barrel vault) ..	Do.	27.80	3.60	7.72
Cupola, The Invalides, Paris ..	Stone	26.00	4.00	6.50

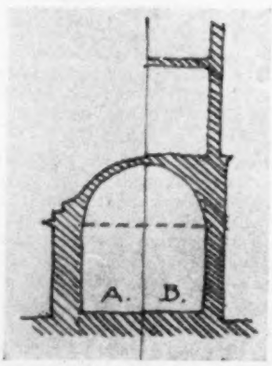


FIG. 2.—RESISTANCE OF THE PIERS OF A VAULT.

The vaulted roof is almost invariably reflected in the plan of the building, the only exception being those cases in which the thrust is provided for by means of iron ties, the most numerous examples of which occur in the *cortiles* of Italian buildings. The use of the iron tie has been and still is a subject for criticism. On the one hand, there are those who see so great an element of danger in the use of a perishable material like iron as a tie in a system of construction exercising considerable thrust that they unhesitatingly condemn its use, and, on the other hand, there are those who maintain that they feel a sense of security by the existence of such a tie. Renaissance architecture provides so many instances of vaults falling under both categories that it is difficult to make a dogmatic statement.

A vault may be a system of roofing or merely a method of fireproofing. The Roman vaults usually fall under the former category, and Gothic vaults under the latter. Apart from the exact form of vaults, to which reference will be made later, it is necessary to consider three systems of construction.

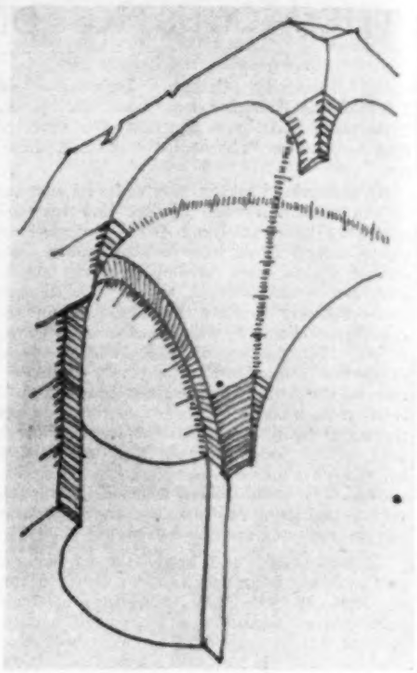


FIG. 3.—ROMAN VAULT, ENTIRELY CONCRETE.

(1) Vaults in cut stone.

(2) Vaults in concrete or similar material.

(3) Arched vaults of the Middle Ages.

Cut stone vaults, which have a most monumental aspect, frequently occurred in French architecture, but are less common in England. They demand careful construction and accurate study; examples exist in the Salle des Caryatides in the Louvre, the Pantheon, and the Arc de Triomphe, all in Paris.

The concrete vaults of the Romans (Figs. 3 and 4) provide extremely interesting studies of construction, not only as methods of construction but as a reflection of the political life of the time. In these vaults the main points of intersection, the outlines of supporting arches and other important details, are built in tiles accurately set out, and the filling is a rough material of great solidity. This system of construction unquestionably arose because in Rome there existed a small number of highly-skilled craftsmen and an unlimited amount of entirely unskilled forced labour. Such vaults, when completed, were monolithic and practically

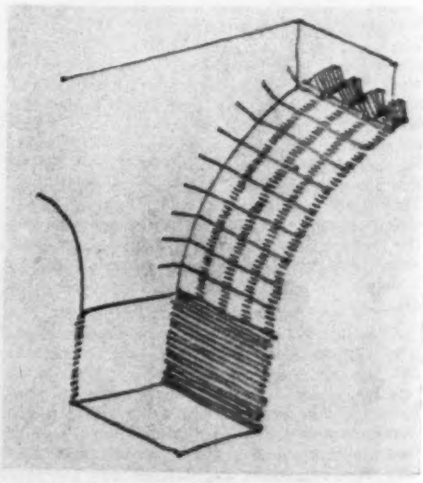


FIG. 4.—ROMAN VAULT, ENTIRELY CONCRETE.

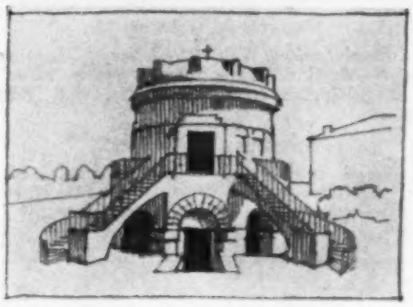


FIG. 5.—TOMB OF THEODORIC, RAVENNA.

without thrust. The internal face was lined with mosaic, or plastered and painted, and the construction was not visible in the completed building.

The vaults of the Middle Ages were the result of a series of efforts to solve anew the problem of vaulting, using small stones and skilled but comparatively expensive labour The ribs formed permanent centering; the panels between were merely filling. The system is that of a skeleton with the spaces between the bones spanned by carefully-cut decorative surfaces. In one sense it is a combination of the features from the first two categories of vaults mentioned.

To return to the question of thrust, the mind of the designer first conceives the vault and the mind of the constructor verifies the stability and reduces that form to exact thicknesses and dimensions. It is obvious, however, that the mind which conceives the form of the vault must have a clear conception of the resultant thrust and appropriate methods of resistance. Why does the vault create thrust? Because it becomes deformed. The Tomb of Theodoric at Ravenna (Fig. 5) is roofed by a single stone cut to the form of a cupola; this is a covering, and not a vault, and it has no thrust. Thrust, then, is due to movement. It is a composite force which can be sub-divided into two elements: one vertical, carried by the wall; and the other horizontal, resisted by special means which are the province of the constructor. The wall, colonnade, and floors are elements which are permanently in repose, but the vault is an element of movement, and the construction for either must not be confused with that for the other. This movement is not alone evident on plan. If we have a vaulted building of a certain height and we increase that height we may render dangerous a vault previously safe (Fig. 6). Similarly, if the constructive material of the vault were made heavy instead of light, or of the walls light instead of heavy, the stability of the structure would be affected.

It is not always possible to determine from the commencement the intensity of the thrust, but as soon as the form of the vault is conceived the direction of the thrust is established. Thus, for the purposes of planning, vaults may be divided into:—

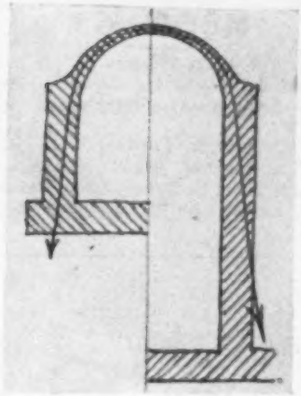


FIG 6.—STABILITY AND INSTABILITY, BY ALTERING HEIGHT OF PIERS.

(1) Vaults having continuous thrusts.
(2) Vaults having localised thrusts.

Vaults with uniform or continuous thrusts (for example, barrel vaults) require walls of uniform resistance, as at the Nymphaeum at Nîmes. Those having localised thrusts require local support, as, for example, at St. Front at Perigueux, Henry VII's chapel in Westminster Abbey, and the nave of St. Paul's Cathedral.

The Romans, in the construction of their tile and concrete vaults, set back the filling behind the skeleton construction, and thereby created a caisson or coffered decoration, which is found in the Basilica of Constantine, and in the dome over the Pantheon, decoration which is in each case the direct outcome of the system of construction. The barrel vault at Nîmes is decorated by a system of projections and recesses following the curve of the vault (Fig. 7). The difference in the system of construction should be noticed. Because of its richness, coffer decoration has been used in cut-stone vaults, but is not structurally logical. A more constructional system of decoration would be that of projecting panels (Fig. 8), but it is so much less rich that its use is not extensive.

It is well here to emphasise the relation between construction and decoration and the necessity for the conception of both to spring from the same mind.

It should be remembered that the vault must be well lighted. In some buildings, such as those in Italy, where a brilliant climate obtains, lighting has been ignored, but in more northern latitudes this is impossible, and the method by which light can be introduced will be considered later.

Inasmuch as the vault is an element of construction in movement, it is necessary to confine this movement to a clearly ascertained and definite direction. For this reason it is advisable to build the vault itself after the retaining walls have been completed and allowed to settle, the springing of the vault being inserted as the walls rise (Fig. 9). This method of construction has the additional advantage of protecting the vault from injury by falling material or weather, since in such circumstances it will not be brought into existence until the roof is on and the building on the way to completion.

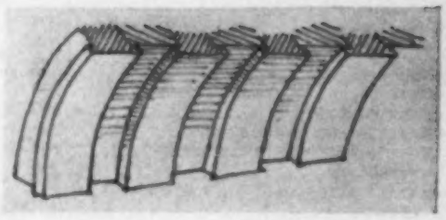


FIG. 7.—BARREL VAULT, NYMPHAEUM, AT NÎMES.

Reference has been made in this article to the decoration of vaults, but some few additional particulars on the subject may be valuable. The constructional nature of the lines of the vault cannot be kept too prominently in mind. Whatever system of decoration is adopted these constructional lines must be emphasised and must form its basis. No ornament, whether cut as a panel or added as a moulding, which tends to destroy the surface of the vault is sound (Figs. 10 and 11). This even applies to the application of painting to the vaulted surface, and should be the test by which the success or failure of the decoration is judged.

During the Renaissance, and probably in ancient times, it became fashionable to paint vaults in a highly-decorative manner, and many of these examples are very beautiful, as, for example, that of the Villa Madame at Rome or the famous Sistine Chapel. The early examples have a geometric basis which governs the design, but some of the later ones dispensed with such restrictions and became purely pictorial. Perhaps the Byzantine method of decoration by mosaic is one of the finest that can be used on the vault, and certainly produces an effect of extreme richness.

The Gothic vault achieved so much decoration from the ornamentation of the ribs which formed the basis of its system of construction that it scarcely needed any addition. Many Gothic vaults were, however, painted.

Possibly, in point of numbers, plaster vaults are now most common, and here a certain licence is possible in decoration which is unsuitable to a more severe material. Nevertheless, the lines of construction must still be paramount and self-evident.

International Road Congress.

The arrangements which are being made in connection with the International Road Congress, to be held in Seville in May of this year, provide for the Congress being opened on May 7, and terminating on May 12. Forms of application for membership may be obtained from the Secretaries at the offices of the British General Organising Committee, 15, Dartmouth-street, Westminster, London, S.W.1.

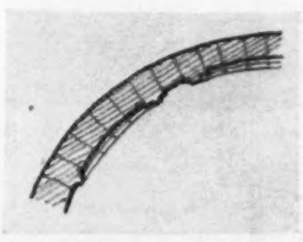


FIG. 8.—ORNAMENT BY PROJECTION ON A CUT-STONE VAULT.

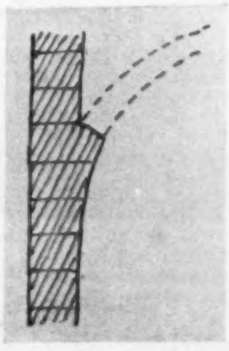


FIG. 9.—SPRINGING OF VAULT, INSERTED AS THE WALLS RISE.

FIG. 10.—BAD TYPE OF DECORATION.

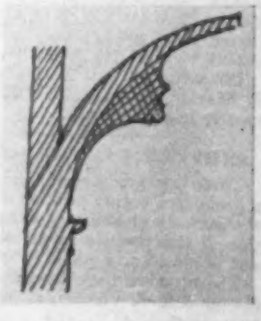


FIG. 11.—BAD TYPE OF DECORATION.

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ILLUSTRATIONS.

Liberty's Building, Argyll-place.

We illustrate this week an elevation and one of the plans of this building, together with some of the architects' large-scale details of the exterior. All the timber in this construction, including the shop-fronts, is of teak obtained from two old three-decker men-of-war, the windows of the upper floors being of wainscot. All the teak framing is tenoned, morticed, and pegged, with mason's jointing throughout. The ground floor shop-fronts are very richly carved, and so are the barge-boards and main timbers of the upper floors. The towers flanking the entrance, as well as the return ends of the elevation, are of Portland stone hammer dressed. The pent roof over the entrance is of stone. The main roof is all constructed of teak and oak covered with red tiles. The chimney stacks are of 2 in. bricks to the architects' special designs.

The contractors for the new building are Messrs. Higgs & Hill, Ltd., of London. The sub-contractors are: Messrs. Castles Shipbreaking Co., Ltd., oak and teak; Messrs. Mallinsons, wainscot; Messrs. Dorman, Long & Co., steelwork; the Siegwart Fireproofing Co., Ltd., fireproof floors; Messrs. Wainwright & Waring, casement windows and the weather vane (this is a model of the ship *Mayflower* in copper gilt); Mr. Laurence Turner, carving; Messrs. Doulton & Co., and Messrs. Dent & Hellyer, sanitary fittings; Messrs. Mather & Platt, sprinkler installation; the Ozonair Co., Ltd., ventilating plant; Messrs. Davey Paxman & Co., boilers; Messrs. Waygood Otis, Ltd., lifts; the Daneshill Brick Co., ornamental chimney stacks; the Aylesford Brick Co., bricks; Messrs. Roberts, Adlard & Co., pent roof and the tiles for main roof; Messrs. J. A. King & Co., pavement lights; the Art Pavements & Decorations, Ltd., biancola partitions; Messrs. F. J. Barnes, Ltd., Portland stone; Messrs. Dennison, Kett & Co., steel shutters; Messrs. Thomas Faldo & Co., asphalte; Messrs. Carter & Aynsley, door furniture; and the Patent Victoria Stone Co., paving.

The architects are Messrs. Edwin T. Hall & E. Stanley Hall, FF.R.I.B.A., of 54, Bedford-square, London, W.C.1.

Model Factory Buildings and Out-buildings.

These new premises and out-buildings occupy a prominent corner position on the outskirts of the Borough of Ealing, London. The construction of the premises is in reinforced concrete, and occupied as a whole by Messrs. Virol, Ltd.

The premises have been designed by Messrs. George & T. S. Vickery, architects, of 50, Gresham-street, E.C. 2, the consulting engineers employed on certain portions of the construction being Messrs. S. H. White & Son, of 9, Victoria-street, S.W. 1. Messrs. F. & H. F. Higgs, Ltd., of Station Works, Hinton-road, Herne-hill, S.E. 24, were the general contractors.

MEETINGS.

FRIDAY, *February* 16.

Institution of Mechanical Engineers.—Annual General Meeting. At Storey's-gate, S.W.1. 6 p.m.

MONDAY, *February* 19.

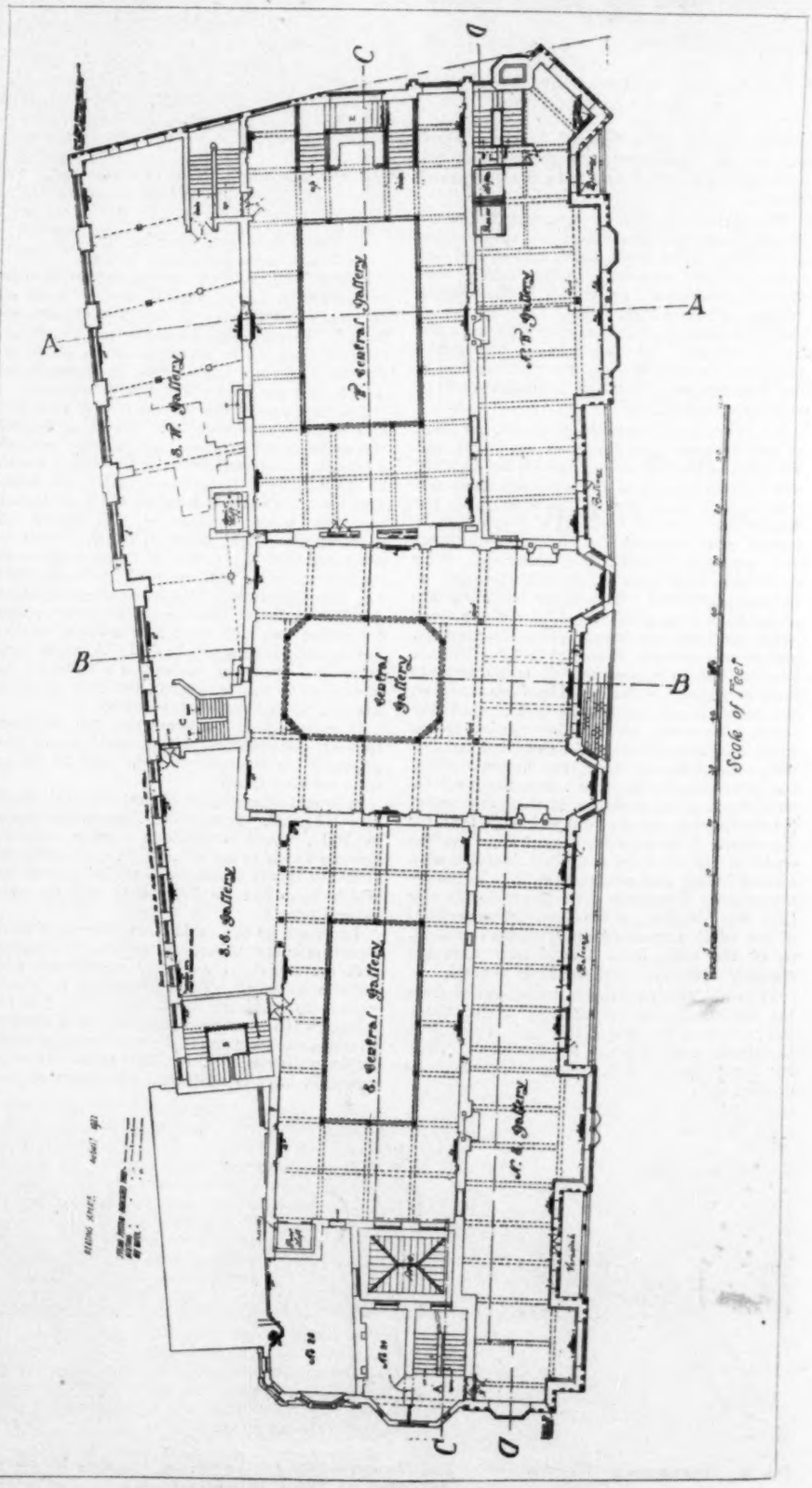
Royal Institute of British Architects.—Mr. H. V. Lanchester on "Architecture and Architects in India." At 9, Conduit-street, W.1. 8 p.m.

WEDNESDAY, *February* 21.

Royal Academy Winter Exhibition of Decorative Art.—Mr. H. Wilson on "The Everyday Crafts." At Burlington House, Piccadilly, W.1. 3.30 p.m.

THURSDAY, *February* 22.

Royal Institute of British Architects.—Mr. J. A. Gotch on "A Note on the Life of Sir Christopher Wren." At 9, Conduit-street, W.1. 5 p.m.



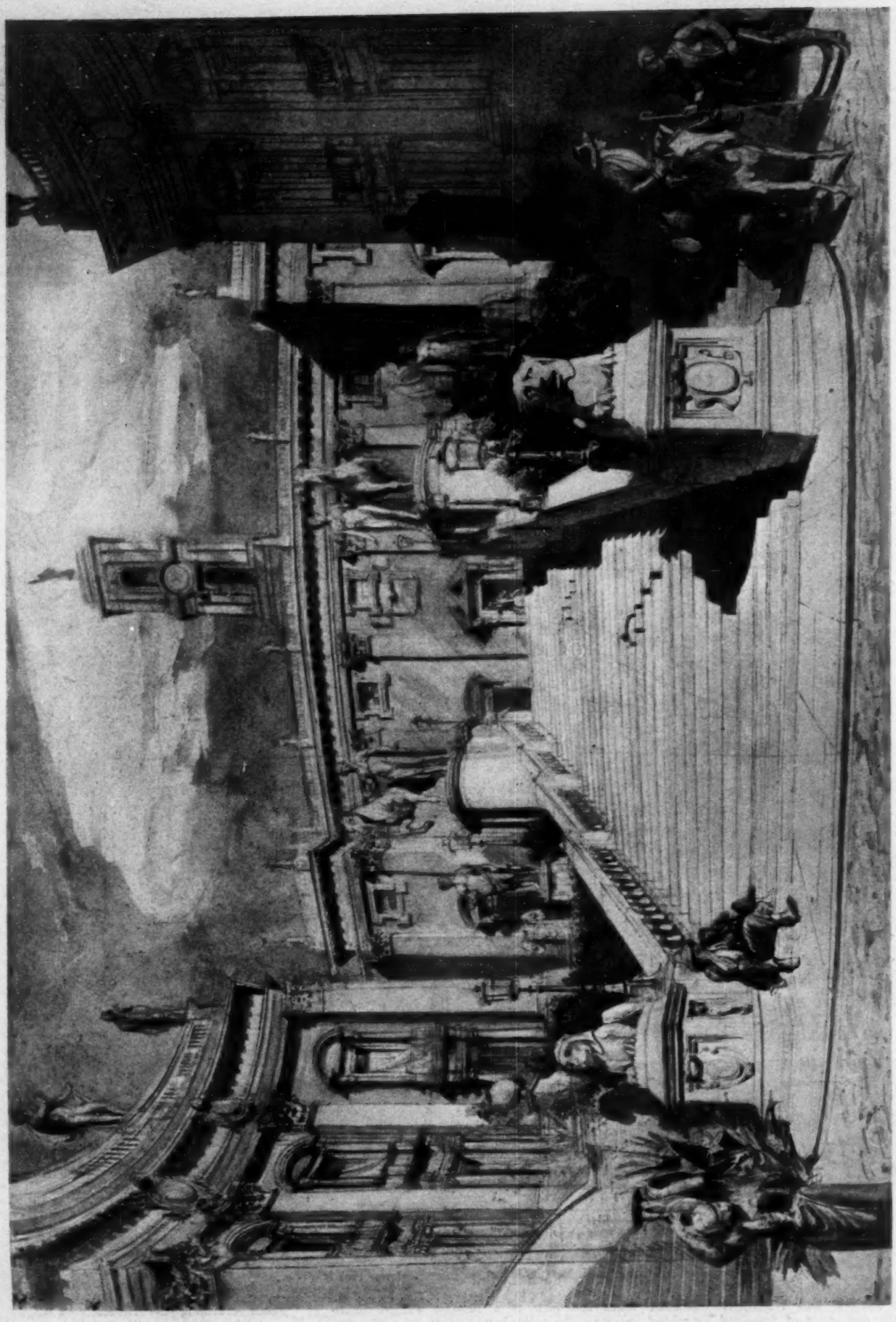
Tudor House Argyll-place, for Messrs. Liberty & Co.

MESSRS. EDWIN T. HALL, F.R.I.B.A., & E. STANLEY HALL, M.A., F.R.I.B.A., Architects

Partick and Whiteinch War Memorial, Glasgow. **Woking War Memorial.**

MR. F. W. DOYLE-JONES, R.B.S., Designer and Sculptor.

The Partick and Whiteinch memorial takes the form of a life-size winged figure of "Peace crowning the Heroes," on a plinth and steps of fine-axed Peterhead granite; the total height is 28 ft. The Woking memorial comprises a life-size bronze figure of "Victory bringing Peace," surmounting a plinth and steps of grey Stancliffe stone; the total height is about 27 ft.

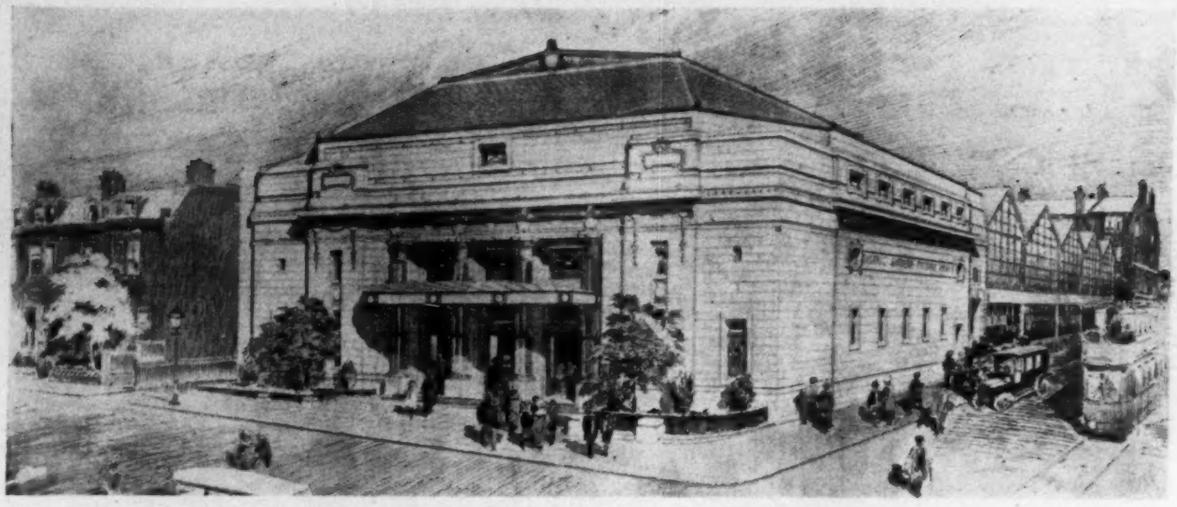


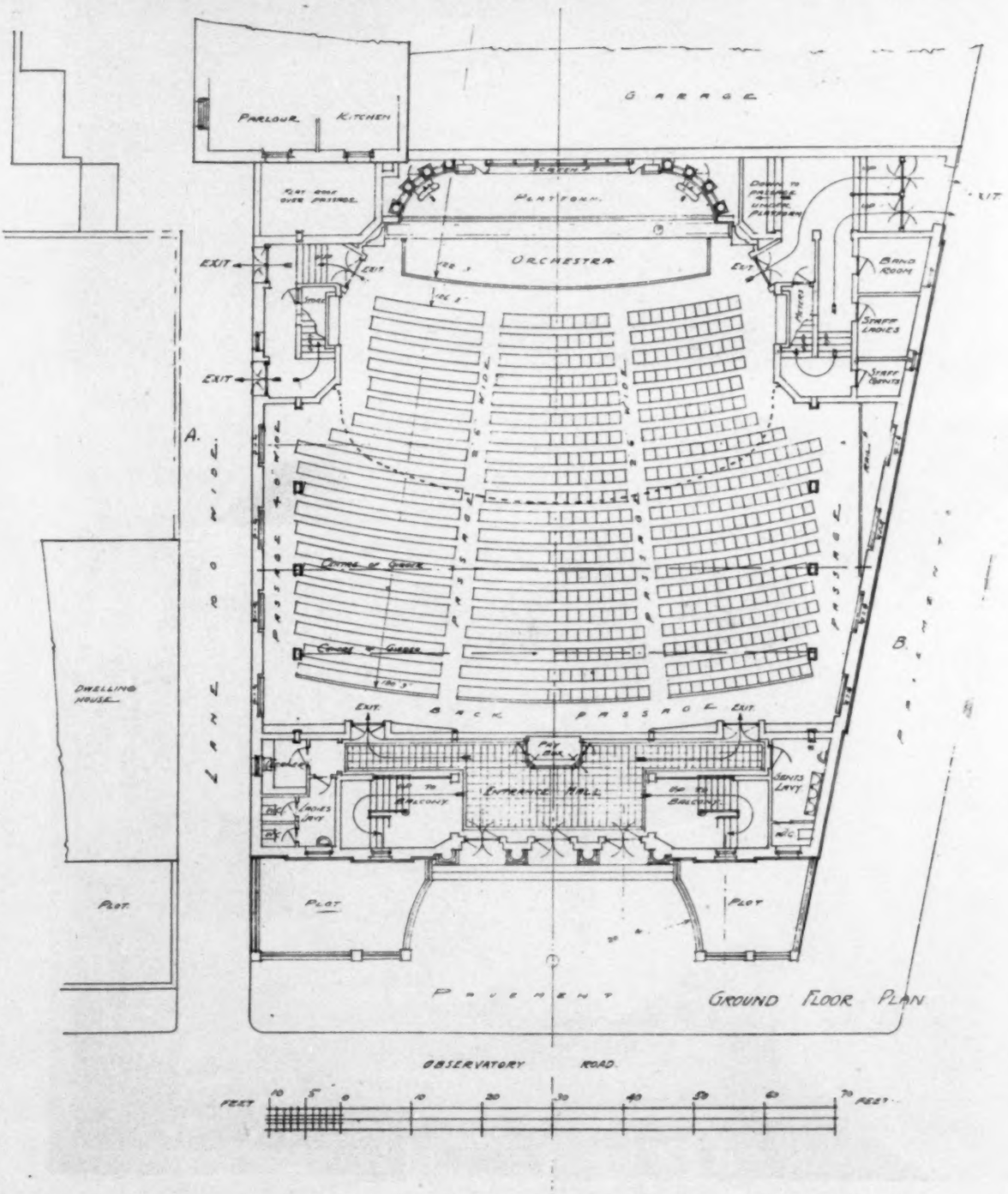
The Stairs of Campidoglio, leading to the Capitol, Rome.
From a Drawing by MR. ALFRED C. CONRADE.

TOUR D'HORLOGE, DINAN.

RUE DE JERZUAL, DINAN.

[From Sketches by Mr. A. C. FARE, A.R.I.B.A.]





Botanic Gardens Picture House, Glasgow. MR. C. J. MCNAIR, Architect. (*See* p. 279.)

CHAPEL EXTENSION, ST. GEORGE'S, HARPENDEN.

THE illustrations show an extension of the School Chapel by 30 ft. in length with the new west elevation, which has been recently completed. The work has been carried out in Luton grey brick facings and Monk's Park stone dressings externally to harmonise with the main school buildings The present work forms a part of the memorial to Old Georgians who fell in the war, which will be completed when the cloisters and garden, shown on the plan, are carried out. The dedication, by the Bishop of St. Albans, takes place on February 17.

The architect is Mr. H. W. Horsley, M.S.A., and the work was executed by Mr. E. C. Jarvis, contractor, of Harpenden, and Mr. J. Binder, of Little King-street, N.W., carried out the glazing to the windows.

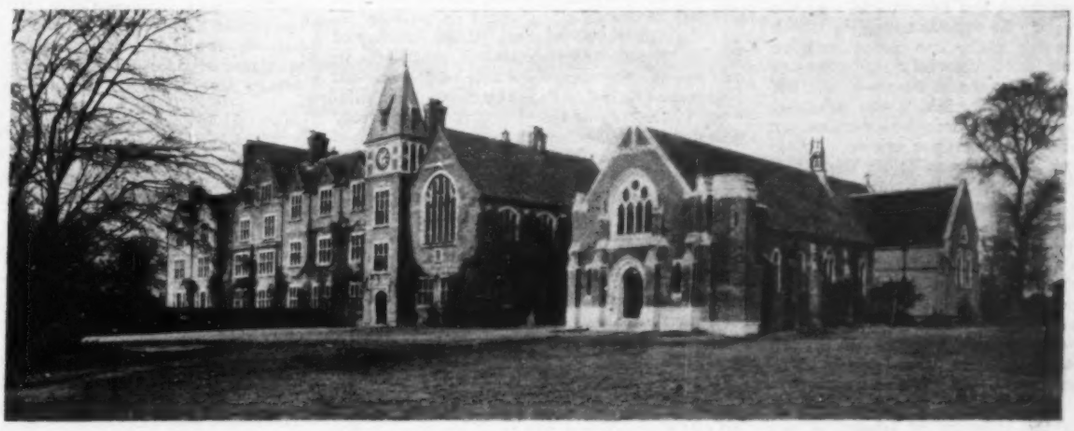
International Congress on Architectural Education.

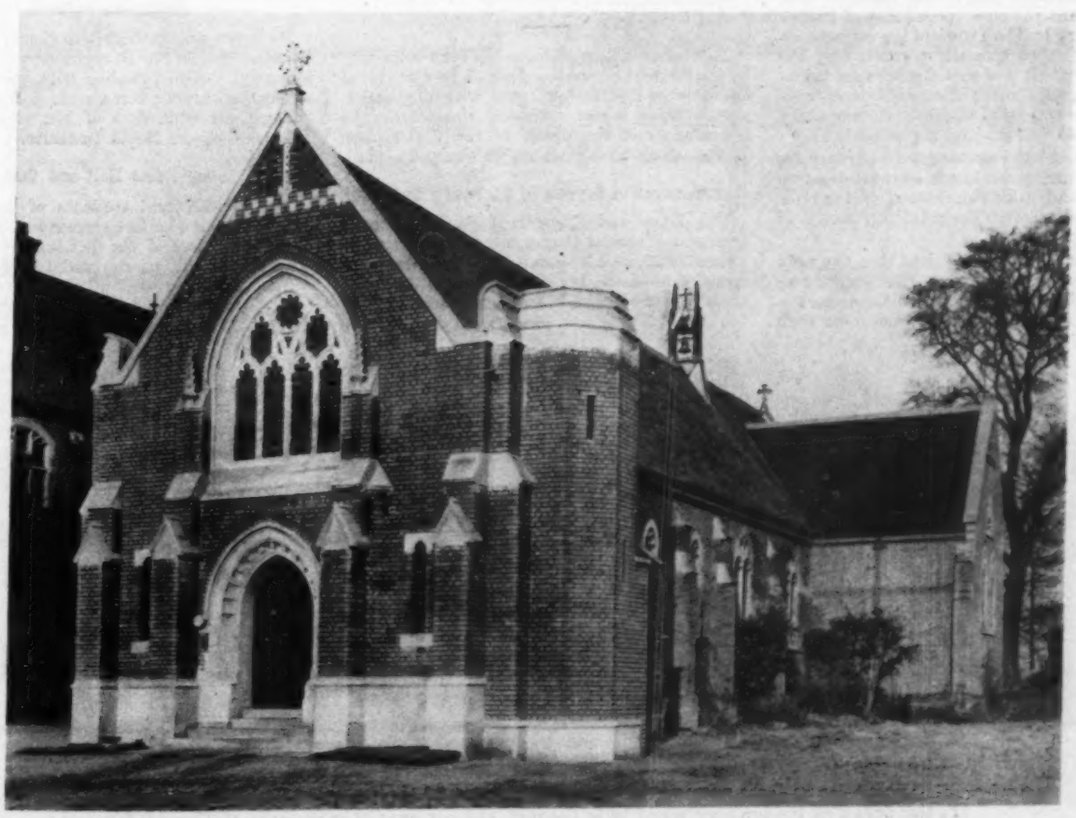
The Council of the Royal Institute of British Architects has decided to hold an International Congress on Architectural Education in London in the autumn of 1924. The Congress will consist of special meetings for the purpose of considering the history, position, and prospects of architectural education, with special reference to the following points: The revision of the methods and system of obtaining professional qualifications; the sources of study; the use of travel; prizes and awards of honour; preliminary studies; draughtsmanship; study of history; practical handwork; professional journals; contact with works; examinations; promotion of post-graduate studies. These meetings will be held for formal and informal discussion. Arrangements will also be made for social intercourse; visits to schools, museums and places of interest; a reception; and an exhibition.

It is hoped that a national and international exchange of ideas will lead to valuable future developments. The Organising Committee of the Board of Architectural Education of the R.I.B.A. will be glad to receive and consider suggestions for the greater success of the Congress, which should be sent to the Secretary of the Board of Architectural Education, 9, Conduit-street, W. 1.

THE BOTANIC GARDENS PICTURE HOUSE, GLASGOW.

THIS theatre is to be erected on a corner site, the entrance front facing Observatory-road and the side to Byres-road. The walls are to be built of red freestone. The building has been planned to give the maximum accommodation, eliminating as much as possible unnecessary corridors or crush space, except at points of access such as entrance hall and at entresol level, where there is an entrance on each side direct to good seats in front of balcony. This gives access to the balcony with the minimum of climbing, the entresol being only 11 ft. from entrance hall floor. There is also a waiting or tea lounge on entresol level. Internally, there will be an impression of spaciousness, with special regard to the proscenium and recessed part for picture screen where the design will have the effect of a garden lay-out. The total accommodation is for 1,300 persons.





Chapel Extension, St. George's School, Harpenden. MR. H. W. HORSLEY, M.S.A., Architect.

HOUSING IN LONDON.

AT the Royal Institute of British Architects on Thursday last week, Mr. G. Topham Forrest, F.R.I.B.A., Architect to the London County Council, gave his second Chadwick Public Lecture, entitled "L.C.C. Post-War Housing."

In the course of his address he first outlined the housing programme of the London County Council, as formulated in June, 1919. The Council, he said, decided to provide within a period of five years from January, 1920, no fewer than 29,000 new dwellings, exclusive of those to be erected upon the cleared sites of insanitary areas. The estimated total capital expenditure involved in the acquisition and laying out of estates and the erection of the cottages was approximately £24,000,000. About 2,000 of the new houses were to be provided on the partially-developed estates at Old Oak, Norbury, and White Hart-lane, and the remainder on new estates at Roehampton, Bellingham and Becontree.

Great difficulties, particularly in the early stages of the work, were experienced owing to the shortage of materials and labour, and also the lack of transport. As regards materials, it was estimated that during the five years the huge total of 700,000,000 bricks and 300,000 tons of cement, for example, would be required. Or, to take all classes of materials, it was estimated that the full programme would necessitate the provision of 1,000,000 tons per annum, or over 4,000 tons per day. It was found that such large quantities of materials could not all be obtained from the usual sources, and consequently steps had to be taken to purchase materials not only in England but abroad. In the few cases where it was possible to obtain the same class of materials from different sources, great care had to be exercised to buy in the cheapest market; the houses were costing an enormous amount of money as compared with pre-war days, and it was essential to make every endeavour to reduce the cost to a minimum.

As regards the shortage of labour, it was found almost impossible to obtain the assistance of skilled mechanics, and as one result of that the Government passed a special Act of Parliament forbidding building work of less importance than housing unless specially permitted by the local authority. It was so difficult to get bricklayers that special forms of concrete construction had to be employed wherever the necessary materials could be found on the site.

A third difficulty was in regard to transport, and to meet the special needs of the Becontree area a jetty had to be constructed on the river and connected up with the estate by means of a new railway.

These difficulties made it clear that the only possible hope of completing the programme within anything like the specified time was the employment of one master contractor on each of the large estates to be purchased. The difficulties which had been experienced on the smaller estates which the Council owned and was already developing showed that one controlling influence was just as necessary for the carrying out of the work at Becontree or Bellingham as it was in the active military operations during the latter and successful period of the war.

The first of the new post-war houses was finished on February 7, 1920, but since that date nearly 6,800 cottages and tenements (in block dwellings), or an average of more than seven per working day, had been completed. In that way new accommodation had been provided for 52,000 persons, which was more than the total provision made by the Council in the fifteen years preceding the war. The number of cottages erected in the three years was nearly twice the number provided by the Council during the whole of its operations in the previous twenty-seven years.

With the completion of the work actually in progress accommodation would be provided in all for about 66,000 persons. If the Ministry of Health should decide that the Council was to proceed to carry out the whole of the original programme he did not see any outstanding difficulty in the way of completing it within a very short period. The new Becontree Estate would ultimately house about 120,000 people, or more than five times the population of Salisbury and somewhat less than that of Coventry. The estate covered an area of about 3,000 acres. The Bellingham Estate was completed on January 31, 1923. A total of over 2,000 houses and flats had been provided on that estate.

The lecture was illustrated with a number of lantern slides showing examples of the work carried out on each of the estates.

THE BI-CENTENARY OF THE DEATH OF SIR CHRISTOPHER WREN.

THE following programme has been drawn up by the Grand Committee, formed by the Royal Institute of British Architects with the assistance of other bodies interested, to celebrate the bi-centenary of the death of Sir Christopher Wren, which took place on February 25, 1723.

Commemoration Service in St. Paul's Cathedral.

The Dean and Chapter of St. Paul's have arranged a special Commemoration Service on February 26, at 2.30 p.m. The members of the Grand Committee, led by Mr. Paul Waterhouse, President of the R.I.B.A., and accompanied by the Lord Mayor and Sheriffs of the City of London, will assemble in St. Paul's Churchyard at 2.30 p.m., and proceed into the Cathedral.

At 4 p.m. the Lord Mayor will entertain the members of the Grand Committee at tea at the Mansion House.

At 7 p.m. the Royal Institute will give a "Christopher Wren Commemoration Banquet" at the Hotel Victoria. In place of the usual after-dinner speeches, commemorative addresses, dealing with the life and work of Wren, will be delivered by the President of the R.I.B.A. (Mr. Paul Waterhouse), Sir Reginald Blomfield, R.A., and Mr. Mervyn Macartney, F.S.A., Surveyor of St. Paul's Cathedral.

Exhibitions.

An exhibition of drawings and photographs, illustrating Wren's work, and of books, letters, and other relics will be open from February 26 to March 3 daily, from 10 a.m. to 6 p.m. (Saturdays, 10 a.m. to 1 p.m.), at No. 9, Conduit-street. The exhibition will be open to the public without charge.

At the Museum, Public Record Office, Chancery-lane, W.C.2, a small exhibition, arranged by the Public Record Office, will be open to the public between 2 p.m. and 4 p.m. (except Saturdays and Sundays). Autograph letters of Wren, original drawings and other contemporary documents will be on view.

Visits to Wren's Buildings.

A programme of visits to Wren's principal buildings, under the general direction of Mr. Percy Lovell, B.A., A.R.I.B.A., Hon. Secretary of the London Society, has been arranged by the Selborne Society. These will include specially guided visits to St. Paul's Cathedral, the City churches, Chelsea Hospital, Hampton Court Palace, Kensington Palace, Greenwich Hospital, and the Universities of Oxford and Cambridge.

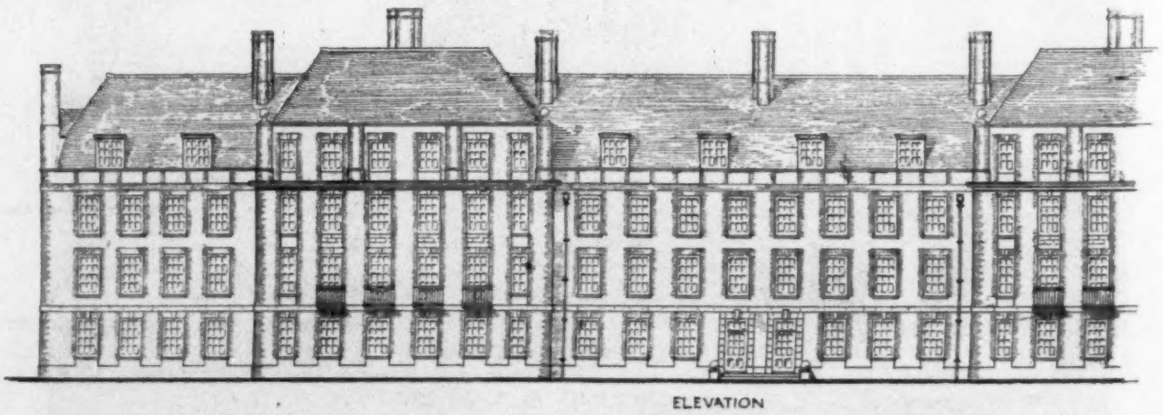
Full particulars of these visits, which are open to the general public, and the necessary tickets can be obtained on application to Mr. Percival J. Ashton, Hon. Secretary, the Selborne Society, 72, High-street, Bromley, Kent.

Memorial Volume.

By arrangement with the Grand Committee Messrs. Hodder & Stoughton will publish a Memorial Volume, dealing with various aspects of Sir Christopher Wren's life and work, under the general editorship of Mr. Rudolf Dircks, Librarian of the Royal Institute.

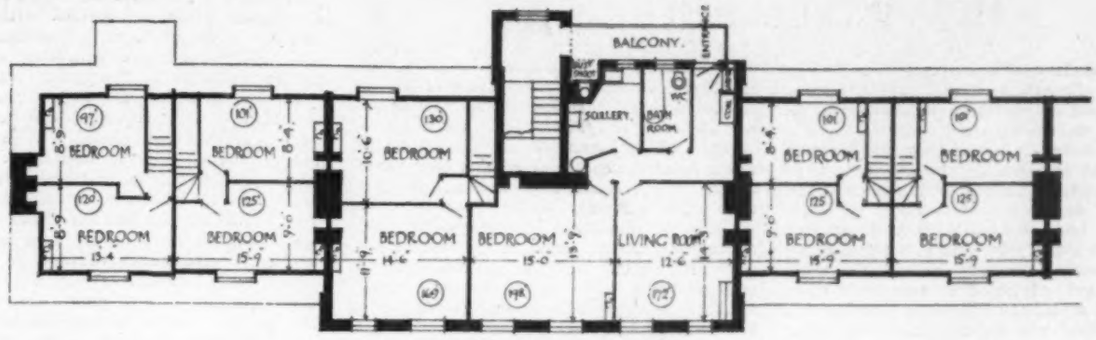
Fancy Dress Ball and Carnival.

The architectural students of London have arranged to hold a fancy dress ball and carnival in the Galleries of the R.I.B.A., on March 9. The profits will be devoted to the St. Paul's Cathedral Preservation Fund. (For tickets and particulars apply to the Secretary, Architectural Association, 34, Bedford-square, W.C.1.)

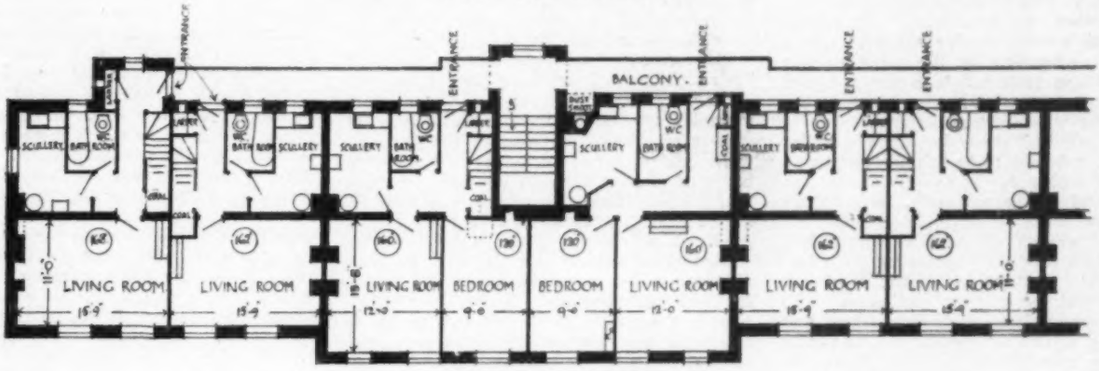


ELEVATION

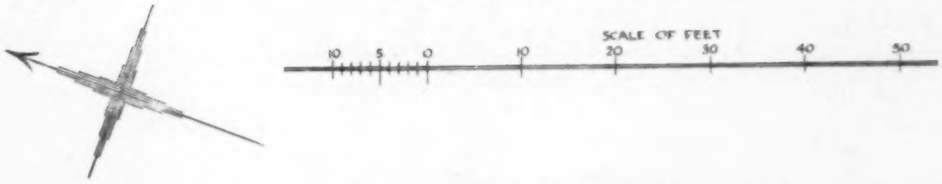
Four-story Cottages. Design by MR. G. TOPHAM FORREST, F.R.I.B.A., Architect to the London County Council.
[In this design all the top floor would be in the roof, and not exactly as shown in this elevation.]

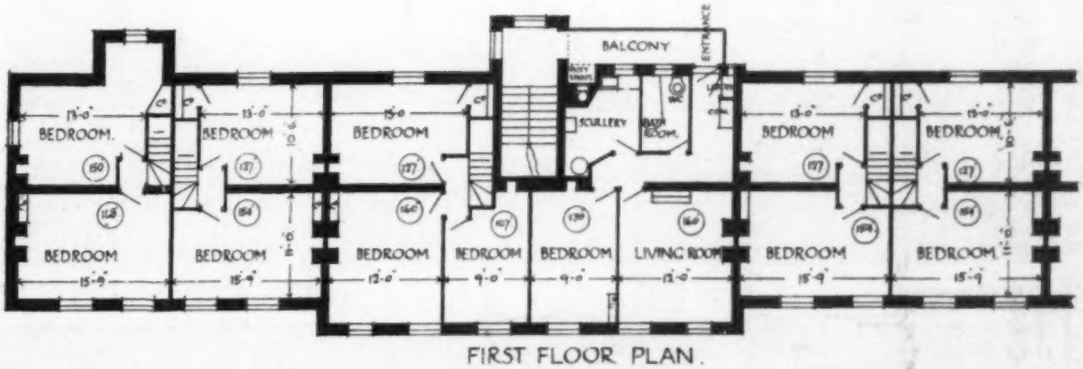


THIRD FLOOR PLAN.

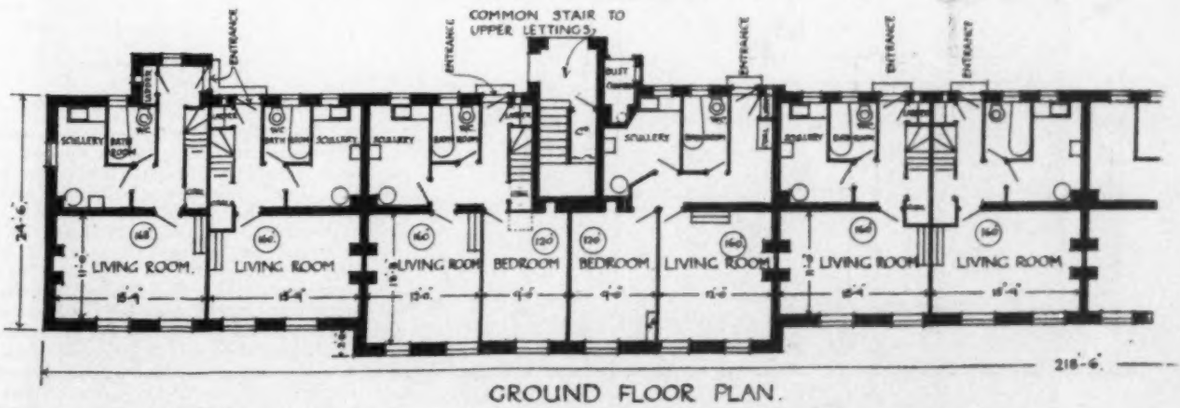


SECOND FLOOR PLAN





FIRST FLOOR PLAN.



GROUND FLOOR PLAN.

Four-story Cottages. Design by MR. G. TOPHAM FORREST, F.R.I.B.A., Architect to the London County Council.
[This design was referred to by Mr. Topham Forrest in a Chadwick Lecture reported in our last issue.]

PANELLING.

AT the Geoffrey Museum recently, Mr. J. Dunkin (of Robersons, Ltd.) gave a lecture on the subject of panelling, which was illustrated by a series of lantern slides.

In the course of his address the lecturer said the use of panelling to any extent in interior decoration started from the sixteenth century; it was employed to cover the plastered walls, both as a low dado, with tapestry covering the upper part, and also for covering the entire walls. English oak was the wood generally used, of which at that time there were ample supplies. The name given to this early panelling was wainscotting, and owing to the best class of oak being used for its construction it became customary to call the wood so used wainscot oak. The term wainscot oak was in regular use until recent times, but owing now to the many sources of supplies that term had been dropped, and oak was now known under the name of the country from which it was imported.

English oak had great decorative qualities and was very durable; like Spanish mahogany it improved with age. The charm of oak was the figure and soft brown colour. Silver grain was another name by which the figure was known, and was of very hard texture, and in course of time stood out slightly from the face of the wood. In antique examples of oak panelling that was very noticeable. In modern reproductions that appearance was obtained by scratching the surface with wire brushes or other tools to wear away the softer grain quickly. Oak panels cut to obtain the greatest amount of figure were of a nature not to split, warp, or shrink. They were almost indestructible in ordinary use. But little shrinkage occurred in the width of a panel, where the medullary ray was parallel to the surface; if any contraction of the wood occurred it would be on the outer edge, and in the thickness. The panels of old oak panelling would be found to have stood well because they had been nearly all quartered in that way. A proof of the quality of oak when figured was the fact that the panels of Stuart, Elizabeth, and Jacobean panelling were of the thinnest possible substance.

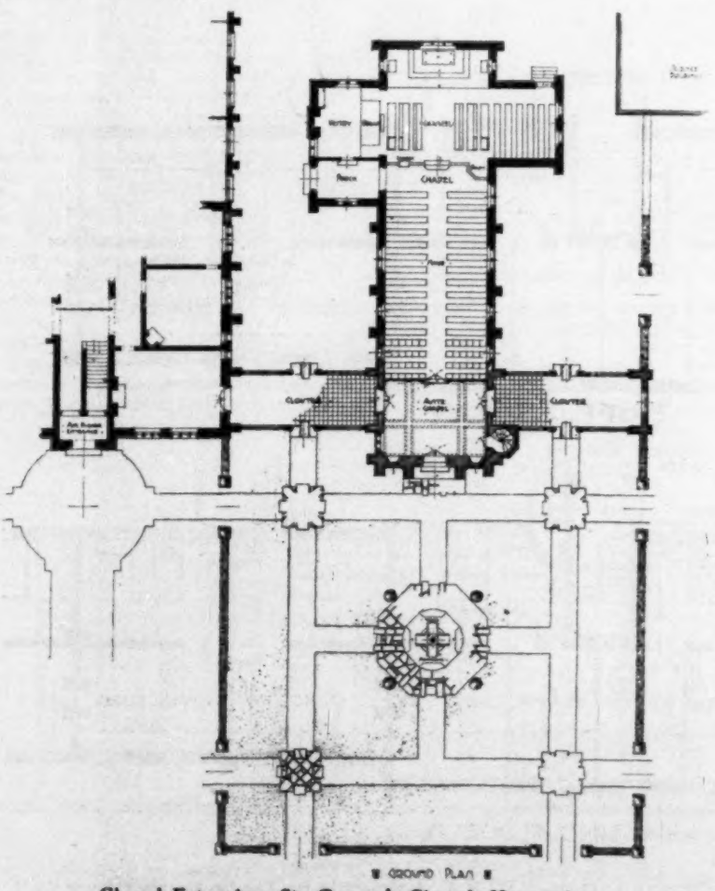
Up to the nineteenth century panelling was entirely made by hand, and that fact accounted for much that was interesting in the old panelling. The back part was usually left very rough. The mouldings worked by the scratch or moulding plane did not show that hard and exact line which was the characteristic of modern machine work. Irregularity in detail was one of the charms of the early Renaissance work in England.

The method of construction of old panelling by mortising and tenoning was practically similar to modern practice. In the early examples the tenons were often pegged for greater security; the joints of the framing, while quite close up on the face, would often be found slightly open on the back, showing that the shoulders of the tenon had been cut out of square to ensure the face joint being good. The narrow panels, small framing, and mouldings of the Elizabethan and Jacobean period were suitable for production by hand craftsmanship. A possible explanation of the small panels with regard to old oak work was the fact that oak logs were not cut through like mahogany, walnut, and other woods. Oak boards and planks were either obtained radiating from the centre, or the tree was cut in two and the boards cut from each half or billet, so that in no case were oak boards wider than half the diameter of the tree.

In the sixteenth and seventeenth centuries panelling was the universal means of finishing the walls, where not covered with tapestry, and it was evident that in the sixteenth century there were a considerable number of skilled craftsmen in the joinery trades. The quaint designs executed in woodwork of the sixteenth century represent the first change over from Gothic to Classic. With no opportunity at that time of studying the Classic models first hand, the craftsmen created their own ideas in imitation of the contemporary work of the French and the Dutch craftsmen. The mansions built in the sixteenth century and early seventeenth century in the Elizabethan and Jacobean styles were numerous and important and of great size. The later Renaissance might be said to have started with the work of Inigo Jones, whose visits to Italy and first-hand studies of the buildings there enabled him to introduce the more correct Classical spirit into the work of the period. Woodwork and panelling were affected thereby: panelling was designed on a larger scale to suit the greater size of the buildings. Carving also was executed with greater skill, eventually becoming more important than the panelling itself. Owing to political circumstances the later Renaissance started by Inigo Jones did not produce great results till the Restoration Period of Charles II, when the craze for building palatial mansions arose throughout the country. Inigo Jones, his contemporaries, and immediate followers did not favour wood panelling so much as the use of stone and marble. It was to the great architect Christopher Wren, who followed in the latter half of the seventeenth century, that was owed the position that wood panelling again filled. It was rare not to find examples of fine woodwork wherever Wren built. Another name equally familiar was that of Grinling Gibbons, whose period coincided almost exactly with that of Wren. Gibbons had made the panelling of the seventeenth and eighteenth centuries famous on account of his carving. He worked out his own designs, which were realistic to a degree. With such success was his carving used in connection with panelling that no important room was considered finished without examples of his work.

Charles II, William and Mary, and Queen Anne represent the period when Wren and Gibbons worked together. The panelling then produced started a phase that was followed throughout the eighteenth century. Its features were the large panels, bold mouldings and cornices decorated with carving of the Gibbons' type. It was customary now to class this style of wood panelling as Georgian.

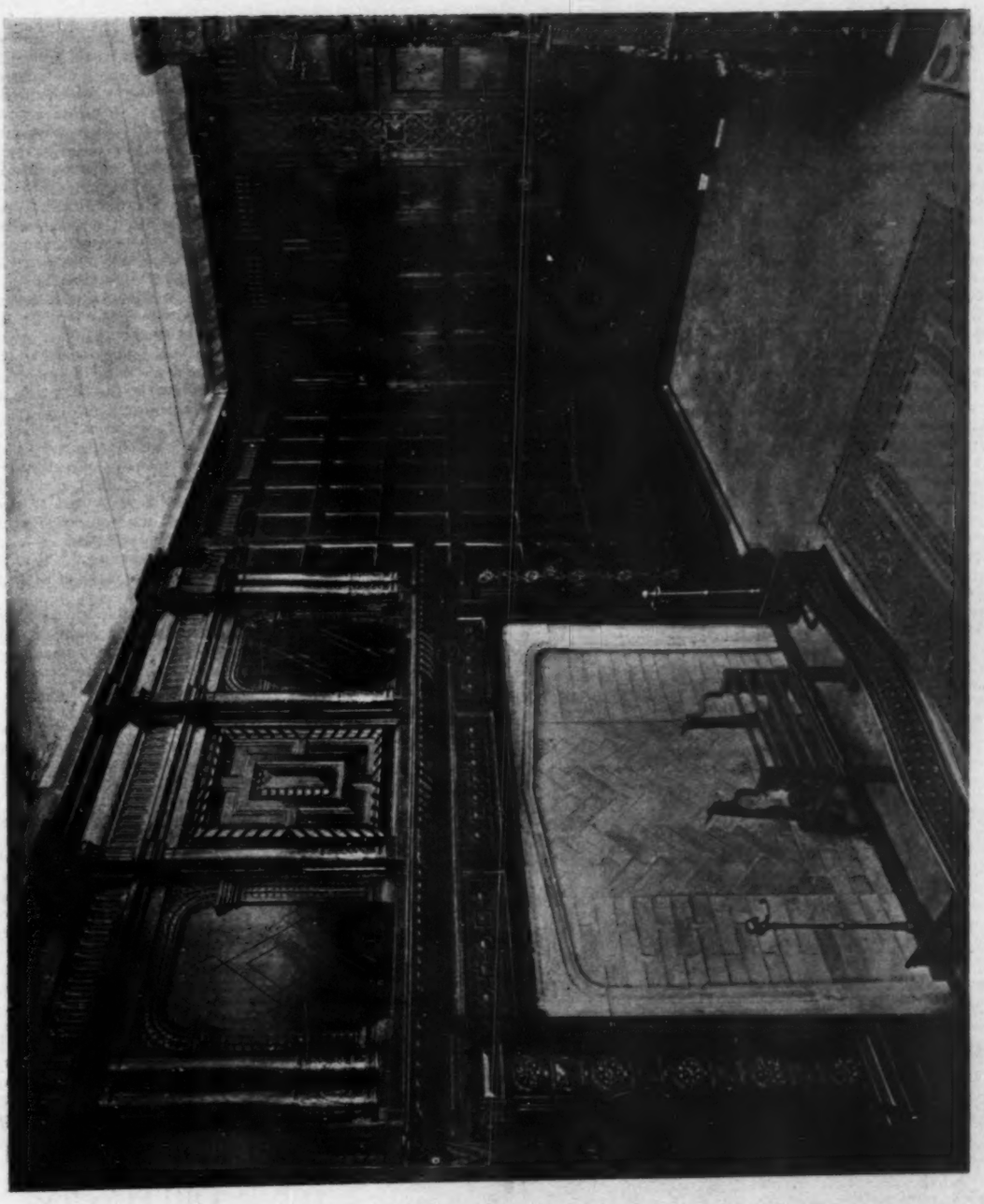
Elizabethan houses were built for comfort, and many for magnificence. The earliest form of decoration in panelling was by using the linenfold panel, and fifteenth-century rooms, where all the panels were so treated, present a very busy and rich effect. An invariable characteristic of all panelling in Elizabethan and Jacobean period was the comparatively small size of the panels.

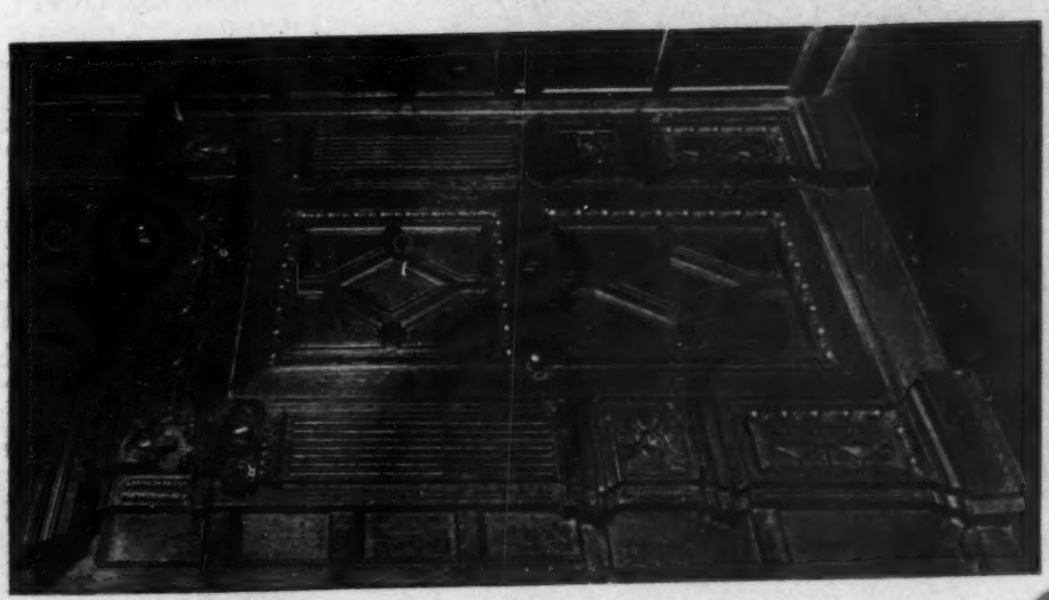


Chapel Extension, St. George's Chapel, Harpenden.
MR. H. W. HORSLEY, M.S.A., Architect. (*See p.* 279.)

Whitgift Hospital, Croydon.

A fully-attended conference of representatives of societies and other bodies opposed to the demolition of the Whitgift Hospital was held at the Royal Institute of British Architects recently, with Mr. Paul Waterhouse, P.R.I.B.A., in the chair. It was decided to take joint action in opposition to the Bill promoted by the Croydon Borough Council. The following bodies were represented:—The R.I.B.A. Art Standing Committee; the Society for the Protection of Ancient Buildings; the Society of Antiquaries; the Surrey Archæological Society; the Civic Arts Association; the Town-Planning Institute; the National Trust; the Commons and Footpaths Preservation Society; the London Survey Committee; the Governors of the Whitgift Hospital; the Whitgift Hospital Preservation Committee; the Whitgift Foundation; and the Whitgift Hospital Anti-Demolition Committee.





The Elizabethan Oak Room, from Standish Hall, Wigan.
THE HOME OF COLONEL MILES STANDISH. (See p. 282.)

THE INFLUENCE OF ARTS AND CRAFTS ON ARCHITECTURE.

AT the Royal Academy, on Wednesday last week, Mr. A. R. Powys read a paper on "The Influence of the Arts and Crafts on Architecture."

In the course of his paper, Mr. Powys said his first thought on the subject was not what was the influence of the Arts and Crafts Society on architecture, but what had been the influence of architecture on the arts and crafts. There had been for many years a group of architects whose work had been ruled by the very principles for which the Society stood. He was not going to claim for that group any priority in the field. In art there was no such common rivalry, but he wished to say that as in the Italian Renaissance the training of the goldsmith resulted in the finest painters, sculptors and architects of that day, so now in England, the training of an architect had helped to make many of their first craftsmen and artists. However much an architect might be trained to study the styles and manners of buildings, his mind must be directed to an examination of the nature of his materials and of construction. It was through knowledge gained by such an examination that the arts and crafts movement grew. He thought in its origin the movement was the expression of a powerful, though inarticulate, force which was not clearly recognised by art workers until William Morris, Philip Webb, William de Morgan, and their great contemporaries first consciously realised what a wealth of invention, what unlimited possibilities of fine work, lay in the thoughtful use and joining of materials as opposed to designing in styles and manners. That seemed to him to be the secret of their adventure in art. No sooner was that idea spoken and illustrated than the people became conscious of the chances open to them. Within a few years of each other, men interested in the various arts formed themselves into groups and societies for the study of these revived principles. Thus came into being such societies as the Arts and Crafts, the Society for the Protection of Ancient Buildings, of which he was secretary, and the Art Workers' Guild. The immediate response showed how inflammable was the material ready to be fired by the first great man who had the ability to kindle it.

Yet with all, he did not know of any society of architects formed from that time to this to study and further in that profession the principles that underlay the Arts and Crafts Society. Thus it was that architects who approached their art from these principles had turned to their society and to the works of their members for inspiration and help, translating from the crafts of furniture-making to the art of architecture the sense for material and construction they saw employed there. The same desire was at the root of the efforts which made for good architecture, as that which had given growth to the development of arts and crafts. It was a desire to do beautiful work which would of itself inevitably give out without ceasing inspiration for further effort. Just as did still the buildings which grew in ages when a free and adventurous spirit was abroad, and that in spite of all the changes in the customs of mankind, and in spite of the fact that not all these buildings suited the uses of that generation. The natural desire, then, was to work with a free and adventurous spirit, being bound by no rules of form and by no deliberate thought of making reproductions, which in reality were mere studies in a past manner; a desire limited only by the needs of the case, the nature of the material and the skill of the workman. The best architecture of to-day would be less thoughtful and less free, if it had not been for the inspiration of men like Ernest Gimson and Sidney Barnsley.

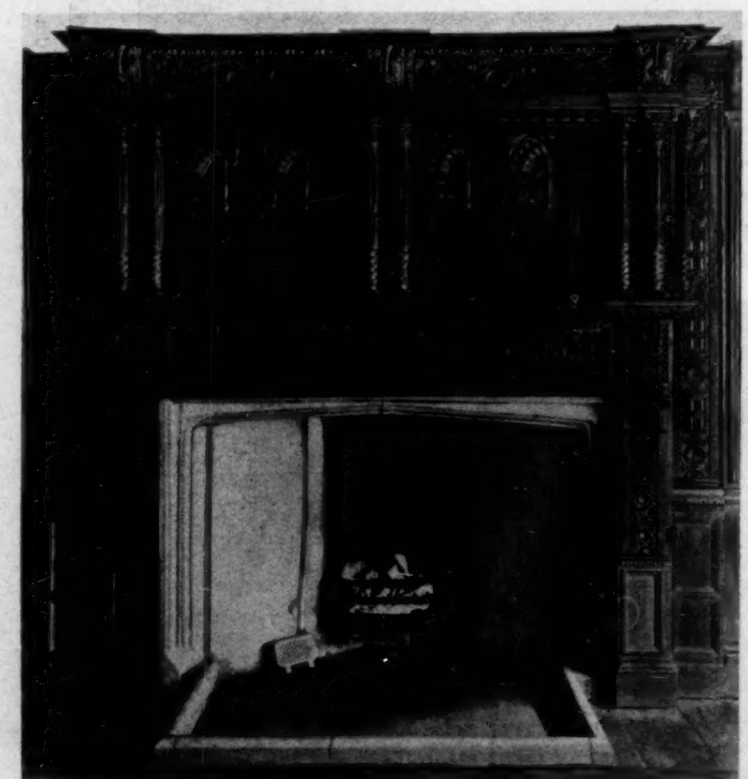
No great era of art ever came into being without a long series of works developed under conditions that seemed almost unchanging. Only after long tradition had the greatest expressions of human life come into being, and that was where he felt that the work being done by the arts and crafts was so very important. It was forming a tradition; it was forming a school of thought to which in two or three hundred years time men would trace the architecture of their day—an architecture which would be as great as any which the world would have seen.

It might be that in the confusion of the present time it was only possible to reach excellence on a small scale. The architects' work must be judged with kindness. At best to-day it was seldom more than the thought of one man. Controlled by one mind it should be, but to be perfect a building should represent a school of thought rather than an individual idea; it should be more than "one man deep." Again, an architect was limited by the desire of his client, naturally and rightly so; but how was architecture to become a really great art when the majority of those who ordered buildings demanded that they should be in this style or that manner, rather than in that manner which was natural to their own age?

One duty, if they were to be loyal to the movement of which the arts and crafts are the centre, was to counter the idea that only old work was good work. The prevailing sentiment for that sort of worship at the false shrine of art was largely caused by a desire to climb the social ladder—a desire to be spoken of as "in the know." That made the matter very difficult for those of them who had little social influence.

The object of the Exhibition was to encourage the growth of a tradition founded on realities and sound growth was slow of necessity. With all his desire for fresh architecture, he knew it was not possible to come by it at will. One of the lessons to be learned from the great periods of the past was that they were very slow in their growth. That was one of the most important things they learned from their masters, that impatience of methods to which they had become accustomed would not lead to vigorous perfection, but would simply end in distortions.

He was tempted to refer to that mysterious quality which all works of art possessed. With many of the modern school he was inclined to think that such words as proportion and style—even though in their true sense they conveyed a meaning which was essential to all fine art—were forgotten. For him proportion in architecture was an expression of the perfect relationship of the mass to the parts. It was not a thing apart from structural necessity. It had a mathematical correctitude which was come at by instinct and not by calculation; it was a thing impossible to calculate. It was only by a strong and instinctive appreciation of such works as they had there that an architect could hope to put into his buildings that perfection which they all so much desired.



Elizabethan Oak Room from Sheldon Hall, Leicester: The Mantelpiece.
(*See page* 282.)

OBITUARY.

The death has occurred of Mr. J. R. Naylor, architect, of Derby, at the age of 69, who had practised in Derby since 1876, and was the architect for important works, including the embellishments of Berkeley Lodge for Sir Wm. Bass, at a cost of £100,000; and the erection of All Saints' Church, Burton.

The death occurred on Saturday of Mr. Charles Hunt, senior partner in the firm of Messrs. Waring & Nicholson, architects and surveyors, of 38, Parliament-street, Westminster. Deceased, who was in his 63rd year, was architect and surveyor to many buildings and institutions, particularly in South London, including the Royal Waterloo Hospital, several blocks of flats and artisans' dwellings for the Mayles & Walcot Trusts, Messrs. Doulton & Co.'s premises, the restoration of the Parish Church, Lambeth, and several London factories.

Yorkshire Church Destroyed by Fire.

The church of St. Helen, Escrick, Yorkshire, was recently destroyed by fire, only the walls and tower remaining. The edifice was erected in 1857. It was designed by the late Mr. F. C. Penrose, of London, and was in the decorated Gothic style.

WREN'S WORK IN LONDON.

UNDER the auspices of the London Society, Mr. Mervyn Macartney, F.R.I.B.A., gave a lecture on "Wren's Work in London," at the Royal Society of Arts, No. 18, John-street, Adelphi, W.C., on Friday last week. Canon Alexander presided.

Mr. Macartney said he was going to make a selection from Wren's works, and to give them what he thought were the best in London. Beginning with Greenwich Hospital (1696–1705), which was made up of work by a number of architects, he said that Jones or Webb designed the first part—the two pavilions close to the river, and the Queen's house at the back—but when Queen Anne came to the throne she got Wren to prepare plans for a hospital combining the two pavilions and the house. As a composition it was one of the finest things that had been designed in any country, and he hoped it would never be changed. The buildings behind still remained as Wren designed them. Greenwich Observatory (1675) was made upon the "cheap." Wren got a lot of old stuff given him, and he did the work as well as he could with the material. Coming up the river to London Bridge they found the Church of St. Dunstan in the East (1698–9). He (the lecturer) did not know that he cared very much for it, but he believed that Wren was very proud of it. St. Margaret Pattens (1687) had a very fine spire. The church was interesting because Wren was churchwarden of it and in the ceiling of the canopy of his pew were his engraved initials. The edifice formed a very fine landmark. One of the last things that Wren designed was St. Michael, Cornhill, which he rebuilt. It was notable because he was not a Gothic man, although he became more Gothic at the end of his days. He (Mr. Macartney) would not give them any views of the interior because it was so much spoilt. The Monument was erected in 1671–73. Wren thought of building it hollow and putting a telescope in. It was a fine upstanding feature. St. Magnus, London Bridge (1676), would, he was afraid, practically disappear; the buildings around were so enormously high that the church would sink into insignificance.

Crossing to the other side of King William-street, they came to St. Mary Abchurch (1686), a very fine little conception, although the outside looked rather dull and uninteresting, but the interior was very fine. Altogether it was a beautiful little gem of architecture, and was one of a series designed by Wren with domes. St. Swithin, Cannon-street, was another, St. Stephen, Walbrook, the third, and St. Mildred, Bread-street, a fourth. He seemed to have designed them one after the other before he got to St. Paul's, so it was said, but he (the lecturer) did not see any connection between them. The four were interesting as showing quite a different treatment. St. Mary-le-Bow was an enormously clever piece of work. He did not think there was any other steeple that Wren copied in any way. That was one of the beauties of his work in London. It was individual, and did not look like Italian, French or German work; it simply belonged to London and London alone St. Lawrence, Jewry (1676) contained very elaborate carving by Gibbons, and the vestibule was quite a gem. Describing it as a funny little church, Mr. Macartney said St. Anne and St. Agnes (1679–80) was an attempt by Wren to cover small areas; he utilised his space to the full. Outside, the church was rather mean and absurd-looking, but inside it was, he thought, very charming. It was said to be one of the "doomed" churches. St. Vedast, Foster-lane, was another that was not wanted. Wren also designed the College of Physicians (1688), a very fine building, which was pulled down about 1840-8. He was a great experimenter and the building was excellently designed for its purpose of delivering lectures.

A number of views, depicting parts of St. Paul's Cathedral, were shown. These included the Bishop's throne, a portion of the Lord Mayor's vestry, the south portico, the west end, &c., and the audience were also able to see a view of a model of Wren's second design for the Cathedral. Mr. Macartney explained that this was the design that Wren was so upset about when Charles II, after agreeing to have it done, changed his mind and would not have it. The second highest steeple Wren built in London was St. Bride's, and he (Mr. Macartney) believed it was ten or twelve feet lower than it was originally, Sir John Staines having taken down the top part and rebuilt it lower. Other works by Wren referred to by Mr. Macartney were Middle Temple Gateway, King's Bench Walk, Temple Bar, St. James's, Piccadilly, Marlborough House, St. James's Palace, Chelsea Hospital, Kensington Palace and Orangery, and Hampton Court Palace. How Wren found time to carry out all his works was a marvel, said Mr. Macartney. He had a matter of three or four palaces, a cathedral or two, fifty or sixty churches, and a similar number of City halls.

Mr. Ernest Law said that although he was not at all an authority on Wren, he did feel that in many ways Wren was neglected; that was to say, in connection with the valuable records which rested at the Soane Museum, at Worcester, and many other repositories of the great architect's work. He thought the Wren Centenary should be made the occasion for the publication of those alternative designs. He was aware that a great many of those drawings and designs might not possibly be attributed to Wren, but the majority were, and it was for critics to distinguish those which came directly from his hand or from some of his pupils. He (Mr. Law) had inspected the designs over and over again, and had found all sorts of problems solved by studying those valuable records of his genius.

The Chairman said the suggestion made by Mr. Law was a valuable one.

The question was asked whether in the event of certain London churches being pulled down there would be any opportunity of re-erecting them within the confines of London, or, at any rate, the steeples and such portions as were distinctly Wren, and therefore memorable?

Mr. Macartney said he was afraid the question was outside his province altogether. He thought that things were not very interesting when taken away from their surroundings. He would rather keep the churches where they were. Some of them were really not very beautiful, and he would rather sacrifice one or two than keep all that were not good.

Sir Aston Webb, in moving a vote of thanks to Mr. Macartney, said he could talk for a long time about City churches. They did not want them taken away, and they knew quite well that if they were taken away London would be degraded. It would not be the same London. From any part they saw those churches, and he thought it would be disgraceful if it could be said that just after the Wren Centenary they began to pull them down. If they demolished churches in London what would they say in the provinces, in Manchester, Liverpool and Birmingham? They would say they would pull churches in those cities down, and the matter would have a more far-reaching effect than he believed many of them at present realised. It would be a disastrous thing to happen, and he hoped it would not. Mr. Macartney had said there was talk of removing All Hallows to Croydon; perhaps they might suggest that they should move Whitgift Hospital from Croydon to London. If they once began to shift about in that way they would not know where they were at all. It had been his good fortune during the last year or two to have something to do with Mr. Macartney, and to watch the work and the great care he was taking of St. Paul's Cathedral, and he felt that if constant care was not taken for a generation or two they would have to face the possibility of a London without St. Paul's.

Mr. Bernard Gibson, in proposing a vote of thanks to the Chairman, urged that public opinion should be exerted to stop the madness of spending money upon a St. Paul's bridge.

Society of Antiquaries.

At a meeting of the Society of Antiquaries of London recently, Mr. H. Clifford Smith exhibited a number of fifteenth-century painted panels from the destroyed rood screen of Nayland Church, Suffolk. The rood screen itself was taken down, apparently, in the eighteenth century or earlier, but eight of the panels from its base were saved. They were roughly fixed at some later date to battens and hung, until quite recently, on the wall of the vestry.

FIG. 3.—St. Katherine. XVth-century yellow stain, with inserted jewels in crown and border of cloak, at Ludlow.

THE MAKING OF STAINED GLASS WINDOWS.

SPEAKING at a meeting of the Royal Archæological Institute, at Burlington House recently, on the making of stained glass windows, Mr. Maurice Drake pointed out an interesting parallel between the successive discoveries in the Middle Ages of various processes of painting glass and the order or the same processes in the making of a modern stained glass window. As an instance, he described the work entailed in the painting of a small figure in a modern window, of such a size and character that it could be completed in from four to five days. Assuming, he said, that the glass was handed to the painter on a Monday morning, it would probably have been outlined by Monday evening, and would thus in one day have reached the stage at which a twelfth-century painter would consider his work completed. The twelfth-century painter was content with simple black outlines. (Fig. 1). On Tuesday morning, having placed his outlined glass upon an easel, the modern painter would proceed to smear it with semi-translucent shading pigment, or "matt."

The mediæval glass-painter living in the thirteenth century made his first efforts at shadow by smearing his glass with matt almost exactly in the same way. The next modern process, stippling the wet layer of matt with a broad flat-ended brush, was a method adopted about the middle of the fourteenth century. This stippling had its purpose, the point of each hair in the stippling brush making a little hole in the wet film of pigment and thus increasing its translucency without impairing the effect of light and shade. Thus by Tuesday evening the modern painter had only repeated the processes adopted by his mediæval predecessors up to the latter half of the fourteenth century. When his stippled matt was dry he next had to wipe out the high lights This was generally done with a stiff hog-hair brush, but sometimes, where abrupt high lights were required, a sharpened stick was used or an ivory point, or even, in cases where delicacy was required, the point of a needle (Fig. 2). All these processes followed exactly the same order as the successive developments of their art by the mediæval glass-painters up to the end of the fifteenth century. Thus it was possible that a modern glass-painter working on Monday, Tuesday, Wednesday and Thursday, would exactly repeat, on each day in its turn, the methods employed by his predecessors of the twelfth, thirteenth, fourteenth and fifteenth centuries. The last process of all, however, the staining of the glass yellow with silver stain, formed an exception to this. Silver staining was discovered early in the fourteenth century, but it was the last process of a painter engaged upon a modern window. Heat sufficient to fix outlines, pigment, or matt, was too hot for silver stain, producing a carroty opacity instead of the golden yellow required, and so yellow stained glass had a special and final firing all to itself (Fig. 3).

FIG. 2.—Bust of a Prophet, XVth century (Victoria and Albert Museum).

But before the painter could start upon his figure, there was much preliminary work to be done. The window had to be designed, the cartoons and cut-line drawings made, and the coloured glass cut to the necessary shapes and tints for him to paint his outlines and shadows on it. To pursue the analogy, if last Monday's work represented the processes of the twelfth century, the glazier cut the glass last week, but, unfortunately, we had lost his time-sheets. We had no evidence of the developments of stained glass prior to the twelfth century, at which period, though archaic in treatment, it was none the less a beautiful and highly skilled handicraft. Many confident statements had been made as to the date and place of the earliest stained glass, but this confidence was not justified. There was no direct evidence as to the origin of the art. Many early writers had praised coloured windows, but there was no evidence that they referred to stained glass in the modern acceptance of the term. In England, in the ninth century, St. Benedict Bishop, Abbot of Wearmouth, imported glass and glaziers from France, but the windows they made may have been only of plain glazing. Glass was fragile, and all the first attempts at stained glass, out of which had developed the earliest windows now extant, had perished long ago. No ninth-century glass remained to us, nor tenth, nor eleventh; and prior to the twelfth century only one single record remained of what must indubitably have been a stained glass window. The Chronicle of St. Benignus, at Dijon, written in the year 1052, mentioned a "very ancient window" then in existence, which contained a subject, "The Martyrdom of St. Paschasius." With that single exception, there was no direct evidence whatever that any stained glass existed at all before the middle of the twelfth century.

Not only had the earliest windows perished, but acres of fine glass up to the fifteenth century had been destroyed by carelessness or ignorance. The British Society of Master Glasspainters, under the presidency of the Right Hon. the Earl of Plymouth, had been formed largely to combat this ignorance, and members of the Institute who had pre-Reformation windows, or fragments of windows, in their charge could now call upon the Society at any time for advice upon their preservation.

FIG. 1.—The Ascension. XIIth-century subject, treated in outline only (Victoria and Albert Museum).

The Royal Sanitary Institute Congress.

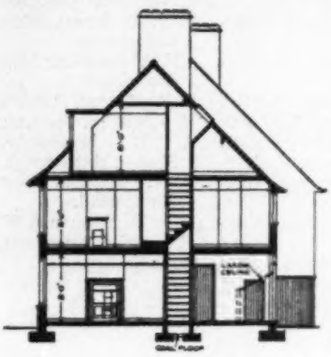
The Right Hon. T. R. Ferens will be President of the next congress of the Royal Sanitary Institute, at Hull, from July 30 to August 4.

EXHIBITION NOTES.

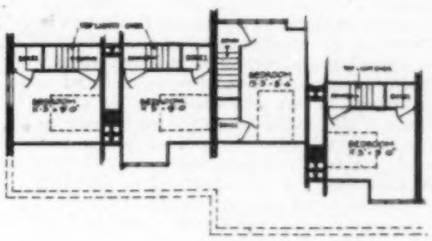
THE A.A.

THE small collection of early architectural illustrations, mostly of the eighteenth century, at the A.A. may suggest that a larger exhibition of the kind would be interesting. We have the Horse Guards, Somerset House, Bow Church, the Houses of Parliament elevation by Barry, the bird's-eye view of the Law Courts by Street, a design or two by Greek Thompson, and a few old engravings. The latter must have awakened in the mind of a lay critic the feeling that we do not illustrate our modern architecture in sufficiently intimate and engaging relationship with the figures of men and women. The critic evidently realises that behind the cold pedantry of the architect there must often lurk some human sympathy, and that perhaps architecture would be better designed and better appreciated if the men and women for whom it is created were more thought about.

The object of the Royal Academy architectural room has something of this in it; in fact, we may presume that its object is to interest the general public in what architects are doing, and there can be nothing derogatory or even futile in an architect, however eminent, trying to interest the public in his work. Supposing that even some trick of colour or chiaroscuro brought him a client and so gave him the chance of producing a good piece of work, need he reproach himself for having played to the gallery? We are all aware that the artistic charm of presentment cannot atone for bad design, but neither can it conceal it from those who know. There have been many phases of fashion in the representation of architecture, but that there has been much ill-advised austerity in its presentation to the public no one can doubt.



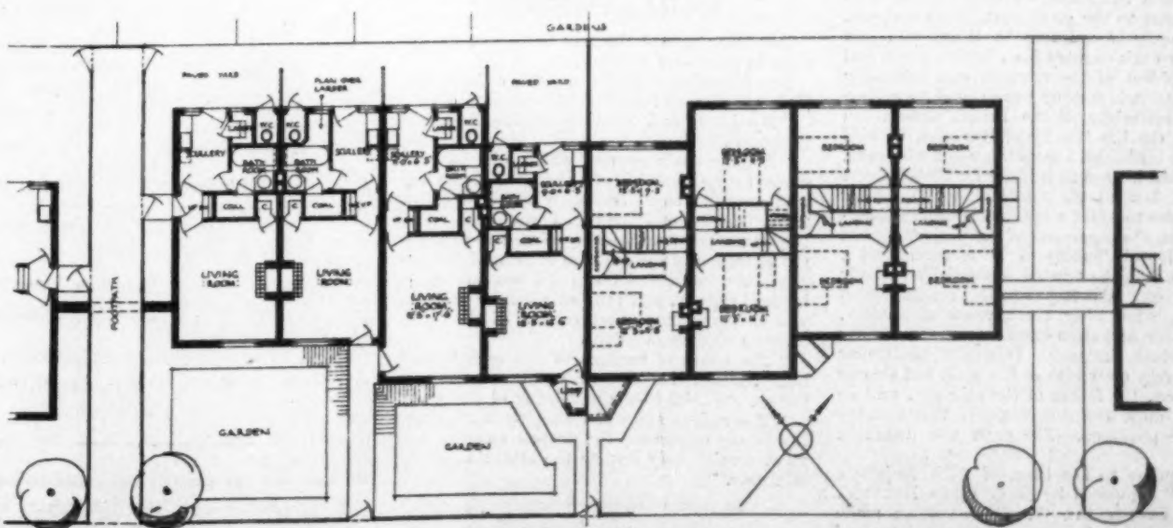
CROSS SECTION



SECOND FLOOR PLAN

END ELEVATION

FRONT ELEVATION



GROUND FLOOR PLAN FIRST FLOOR PLAN

T. Cecil Howitt D.S.O. A.R.I.B.A. ARCHITECT FOR CITY ENGINEER

Proposed Houses, Woolner Road and Beauvale Road, for the City of Nottingham.

MR. T. C. HOWITT, A.R.I.B.A., City Architect.

[The Nottingham Housing Committee has recommended the erection of 44 houses, to the design shown above, at a cost of £295 each, exclusive of land, &c. The houses are to be let at rentals of 7s. 4d. and 7s. 10d. a week.]

INSTITUTION OF STRUCTURAL ENGINEERS.

ANNUAL DINNER.

AT the Savoy Hotel, on Wednesday evening last week, Mr. E. Fiander Etchells (President) presided over the first annual dinner of the Institution of Structural Engineers (formerly the Concrete Institute). The members and guests present included the Rt. Hon. Lord Riddell, the Rt. Hon. Sir Charles Darling, Major-General Sir W. S. Brancker (Director of Civil Aviation), Mr. G. Topham Forrest (Architect of the London County Council), Sir Charles Morgan (Vice-President of the Institution of Civil Engineers), the Rev. F. H. Gillingham, Mr. G. W. Humphreys (Chief Engineer of the London County Council), Sir Charles T. Ruthen (Director-General of Housing), Mr. H. D. Searles-Wood (Vice-President of the Royal Institute of British Architects), Mr. H. J. Deane, Mr. J. S. Highfield (Past-President of the Institution of Electrical Engineers), Capt. H. C. Riall Sankey (Past-President of the Institution of Mechanical Engineers), Mr. A. S. Spencer, Mr. Gower B. R. Pimm, Major James Petrie, Mr. J. E. Franck, Mr. E. J. Partridge (President of the Society of Architects), Mr. H. J. C. Johnston (President of the Institute of Clayworkers), Mr. H. K. G. Bamber, Mr. W. H. Nicholls (President of the National Federation of Building Trades Employers), Mr. H. Greville Montgomery, Mr. John Murray, Mr. W. Noble Twelvetrees, Mr. G. A. Gardner, Mr. Ewart S. Andrews, Mr. Ernest J. Brown (Director of the London Master Builders' Association), Mr. J. W. Theobald, Mr. S. Bylander, Mr. F. E. Wentworth-Sheilds, Mr. G. C. Workman, Mr. H. Kempton Dyson, Mr. Harold H. D. Anderson, Brigadier-General the Hon. F. C. Stanley, Mr. Henry Joseph, Mr. E. J. Sadgrove, and Mr. Thos. Wallis.

After the loyal toasts had been honoured, MR. EWART S. ANDREWS introduced a novel feature when he proposed a toast "To the Pious Memory of a great Structural Engineer." In the rush and worry of modern life, and in the dazzle of recent accomplishments, they were, he said, apt to forget the debt of gratitude they owed to the past masters in their profession. He thought it would, therefore, be a good thing if they would give a few minutes to honour the memory of one of the great men who had gone before them, and he proposed that they should that evening drink to the memory of John Smeaton, the designer of the Eddystone Lighthouse, which had stood for over 160 years as a monument to the good work of its designer, as a beacon of welcome to those who had returned to this country from foreign parts, and as an emblem of the strength and reliability of character which they were proud to believe were characteristic of the British nation. In outlining the life history of Smeaton, he said his father (although a lawyer!) was a wise man, and allowed his son to transfer his life's interest from the law to the mechanical arts. After two failures to build a lighthouse on the Eddystone rock, the promoters of the project applied to the Royal Society to be recommended a man who could be trusted successfully to carry out the work. The Royal Society recommended Smeaton, who, after three years of anxiety, great labour, and often great danger, successfully accomplished the task. It was difficult now to get a very clear idea of the man, but George Stephenson, the father of the railways, said he was the most eminent engineer this country had ever produced.—The toast was drunk in silence.

In response to the toast of "His Majesty's Services" (proposed by Sir CHARLES RUTHEN), MAJOR-GENERAL SIR W. S. BRANCKER made some interesting forecasts as to the future of aviation. To-day, he said, they were talking of aeroplanes of 3,000 and 4,000 h.p., which would be able to cross the Atlantic in one day. At the Air Conference which was being held that week there was, he said a consensus of opinion that commercial air transport would be paying its way within five or six years. It was very necessary, however, that the public should be convinced that travel by air was safe and reliable, and in that connection it was interesting to note that during the whole of the year 1922 on the whole of the passenger-carrying services across the Channel and the various joy-riding enterprises in this country no passenger was killed and only one was slightly injured. He believed that with good organisation travel by air was safer than other means of transport. He believed it would shortly be possible to fly at 300 miles an hour; already it was possible to fly at 230 miles an hour at ground level, and a device had now been nearly perfected which would enable aeroplane engines to maintain their power at an altitude of 30,000 ft., where much greater speed was possible owing to the rarer atmosphere.

In proposing "The Institution of Structural Engineers," LORD RIDDELL, after expressing an opinion as to the necessity for the Institution in preventing the country from being spoiled by the indiscriminate erection of buildings without regard to soundness of construction, referred to the objects of the Institution and its recent change of title. The advent of reinforced concrete construction had, he said, led to enormous developments in building, and had led to the establishment of a new branch of engineering, aptly called structural engineering. For several years the Concrete Institute had described itself in a sub-title as "An Institute for Structural Engineers," but so many other forms of construction in which concrete only formed a part had been introduced that the title was rather misleading, and the body now had a new and very suitable name.

MR. E. FIANDER ETCHELLS, in responding, expressed his thanks for the great help he had received from the Council during his term as President, and entertained the gathering by reading a manuscript which had, he said, been discovered in the tomb of Tutankhamen; we suspect, however, that his hearers attributed it to one who does not at all resemble the published portraits of that ancient potentate, and who was much nearer than the Valley of the Kings!

MAJOR JAMES PETRIE proposed "The Guests," and, in responding, Mr. JUSTICE DARLING emphasised the importance of engineers having due regard to the appearance of their works as well as producing a sound structure.

The REV. F. H. GILLINGHAM also responded.

THE WEEK IN PARLIAMENT.

THE King opened the new Session of Parliament in person on Tuesday.

The following extracts are taken from His Majesty's Speech from the Throne:—

"My Lords and Members of the House of Commons,—

"Among the measures which will be presented for your consideration will be Bills dealing with unemployment, insurance benefit, housing, trade boards, and industrial assurance. The Departmental Committee appointed to consider the operation of the Increase of Rent and Mortgage Interest (Restrictions) Act has now made its final reports, and proposals will be made to you to carry into effect certain of the Committee's recommendations.

"The financial burdens of the country are heavy, and reductions in public expenditure remain essential to the well-being of the State.

"The serious state of unemployment among My people causes me the deepest concern, and must continuously engage the attention of My Ministers."

Architectural League of New York.

On the occasion of the opening of its thirty-eighth annual exhibition, the Architectural League of New York elected Mr. Paul Waterhouse, President of the Royal Institute of British Architects, as an honorary member of the League in recognition of his distinguished services to the art of architecture.

THE SURVEYORS' INSTITUTION

THE following candidates have satisfied the examiners in connection with the Preliminary Examination, 1923:—

H. G. Abbot, Bristol.
S. V. Abel, Willesden.
H. J. Absalom, Epsom.
J. K. Atkinson, Liverpool.
G. F. Barrell, Grantham.
F. L. Barrett, N.W.1.
A. T. Baylis, Birmingham.
D. G. Bennett, Beckenham.
J. H. Bowers, Chester.
T. N. Boys, Hastings.
S. E. Bracher, Dorset.
E. G. Brown, N.21.
R. A. Burgess, Weymouth.
L. W. Burton, Leicester.
S. J. Chamberlain, Littlehampton.
A. N. Chappell, Cardiff.
K. G. Chavasse, Bromley.
M. P. Coleman, Haydock
H. G. Collins, Mortimer
H. E. Corben, Southsea.
B. J. Cornelius, Horsham
G. Cowan, Sunderland.
L. C. Croysdill, Hove.
J. E. Dobbie, Spennymoor.
A. A. Driver, Chard.
R. K. Eggar, Ashstead.
A. Ellson, Ilford.
G. E. Fane, Dover.
J. St. V. Fox, Salisbury
C. E. Gatensbury, Shrewsbury
L. J. Godden, Haverhill.
W. G. Gray, Sutton Scotney.
H. G. Grayson, Bayswater.
A. E. H. Green, N.16.
J. W. C. Hansley, Sanderstead.
A. J. G. Heys, East Dulwich.
R. P. Hickin, Tanworth-in-Arden.
L. A. Hobbs, Folkestone.
A. W. Howse, Welling.
R. C. W. Hurt, Derby.
B. E. James, Balham.
E. L. Johnson, Sandgate.
H. J. Johnson, Douglas
H. H. D. Jonas, Limpsfield.
W. O Jones, Penyffordd.
O. C. Kelly, N.W.5.
J. A. Kent, Bournemouth.
G. B. M. Lansown, Kensington.
A. Lockwood, Preston.
L. A. Lucas, Finsbury Park.
R. G. Lyle, Waterloo.
R. J. H. Lynes, Wolverhampton.
*E. C. Marshall, Sanderstead.
F. R. Morgan, S.W.11.
H. J. Mulder, Chatham
A. R. Newcombe, Market Harborough.
P. A. Newman, West Hampstead.
G. E. M. Norman, S.W.
F. G. Offen, Newcastle, Staffs.
G. P. Parker, Wallington.
C. G. G. Pope, Gillingham.
J. M. Potter, Carlin How.
S. W. Putt, Gravesend.
A. Pye, Sheffield.
W. F. Rand, Hungerford.
A. T. Renny, Berkhamsted.
R. Salmon, Barnt Green.
C. L. Samson, Eastbourne.
J. R. Sanford, Teddington.
W. H. Sheppard, Welshpool.
E. C. Smith, Portsmouth.
C. Taylor, Preston.
G. R. Thomas, Hampstead.
G J. E. Tomlinson, Okehampton.
W. Tomlinson, Saltburn.
R. G. Walker, Horsforth.
F. C. Ward, Exeter.
W. G. Whatley, Hove.
E. M. Wheeler, N.
F. L. White, Saltburn-by-the-Sea.
H. W. Wilkins, Hunton Bridge.
N. H. Wright, Peterborough.
S. W. Wyatt, Bournemouth.

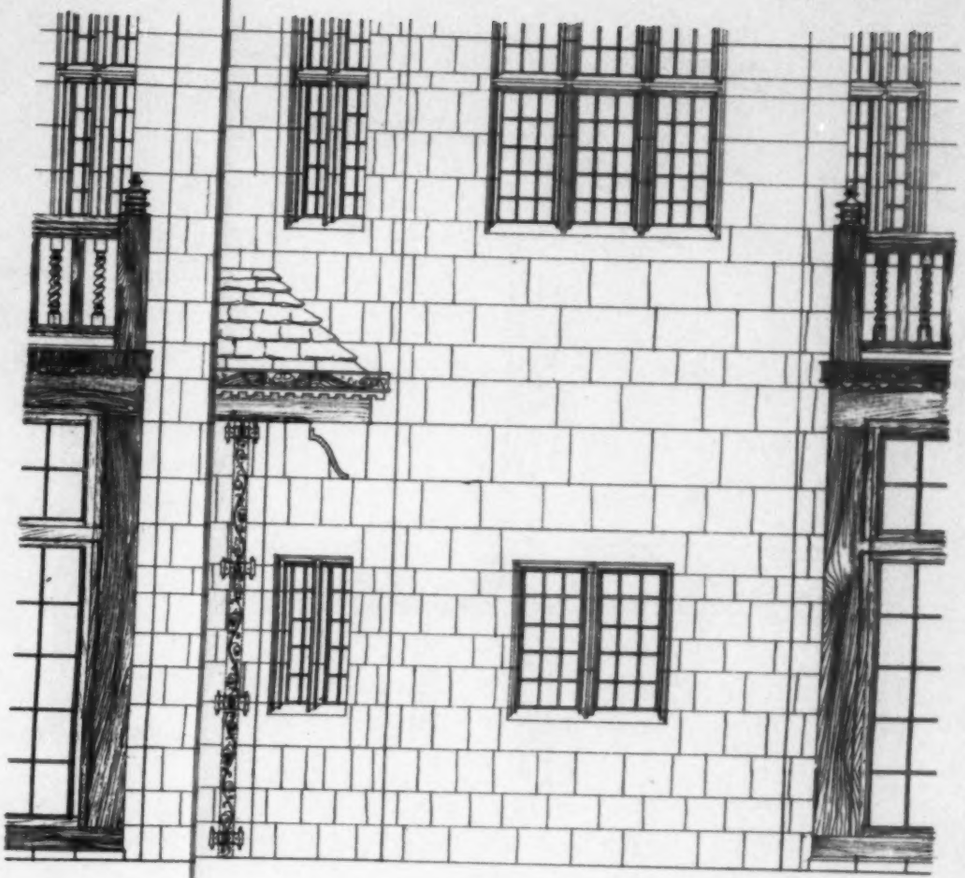
SCOTTISH CANDIDATE.
A. King, Edinburgh.

IRISH CANDIDATE.
R. D. Joynt, Dublin.

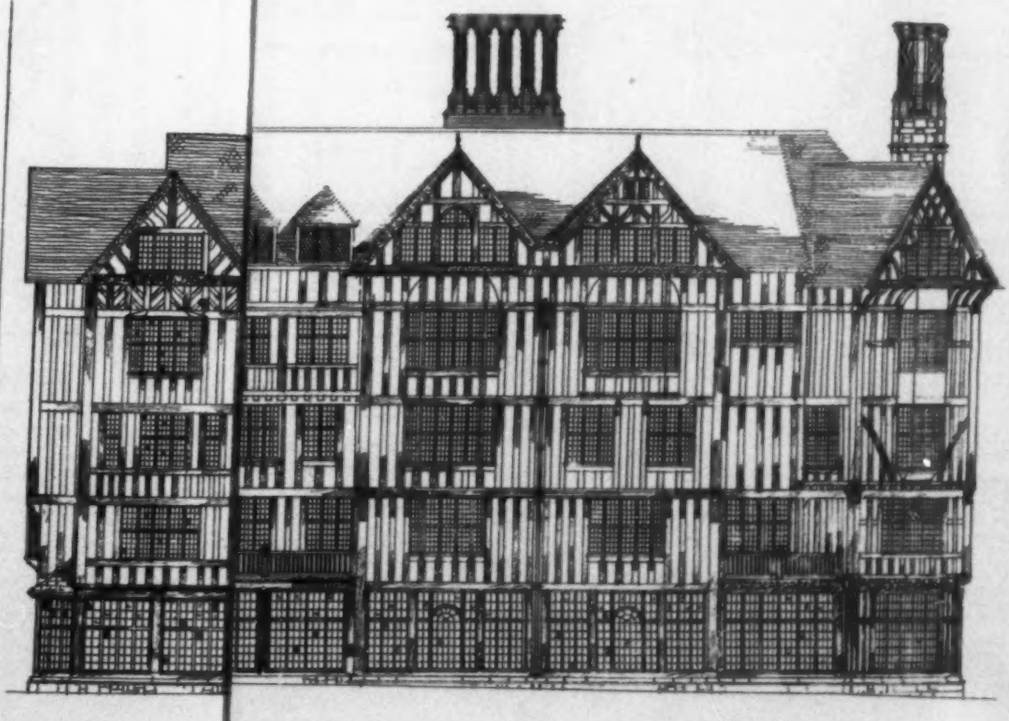
* Head of List.

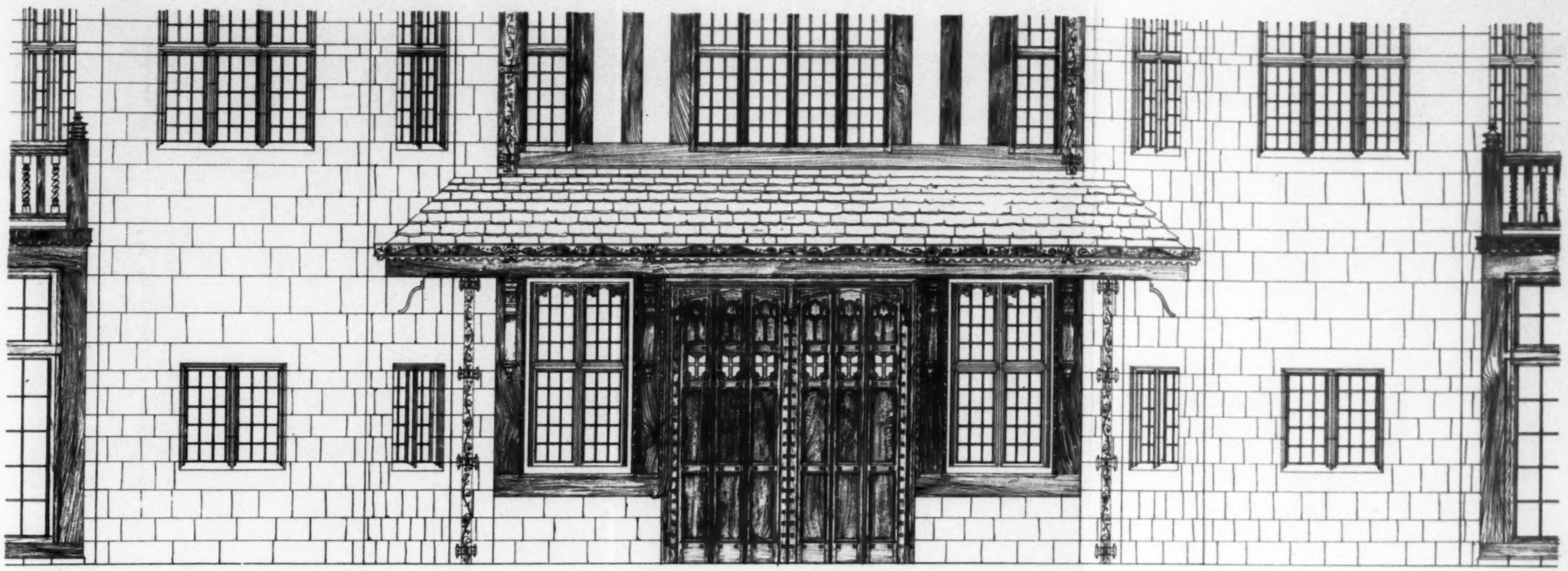
University of London, University College.

In connection with the bicentenary of the death of Sir Christopher Wren, Mr. A. E. Richardson, Professor of Architecture, will deliver a public lecture, with lantern illustrations, on "The Public Buildings of Sir Christopher Wren," at University College, on Thursday, March 1st, at 5.30 p.m. Tickets may be obtained on application, enclosing stamped addressed envelope, to the Secretary, University College, London (Gower-street, W.C.1).



EDWIN T. HALL. ·F
E· STANLEY HALL.
ARCHITECTS·
54· BEDFORD SQUA





MAIN ENTRANCE DOOR.

EDWIN T. HALL. F.R.I.B.A. F.R.S.I.
E. STANLEY HALL. M.A. F.R.I.B.A.
ARCHITECTS. JAN. 1923.
54. BEDFORD SQUARE. LONDON.

TUDOR HOUSE · ARGYLL PLACE · W.1.

Scale of Feet.

MESSRS. EDWIN T. HALL, F.R.I.B.A., & E. STANLEY HALL, M.A., F.R.I.B.A., ARCHITECTS.

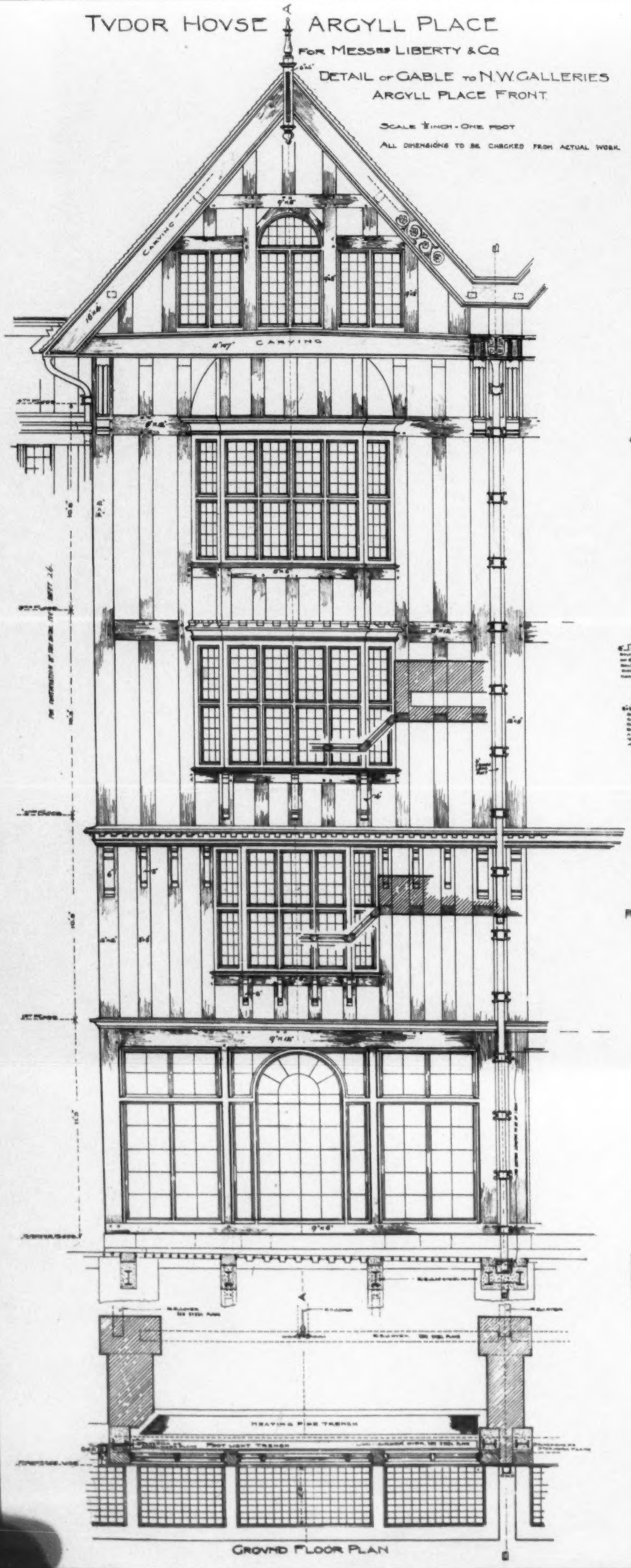
TVDOR HOVSE ARGYLL PLACE

FOR MESSRS LIBERTY & Co

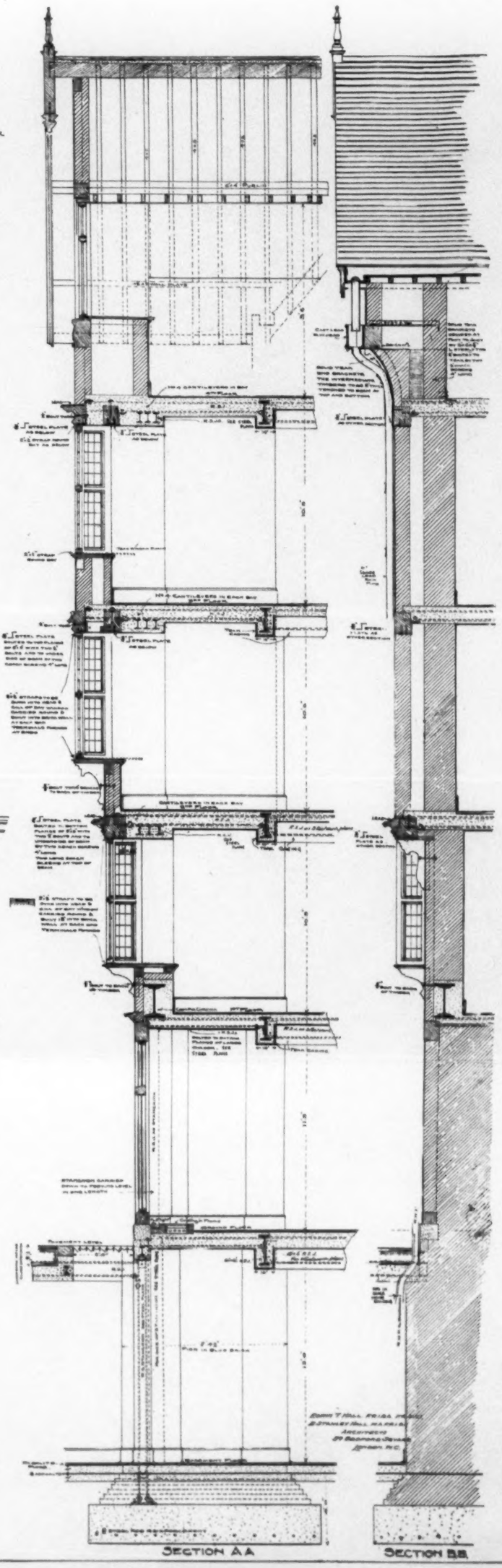
DETAIL OF GABLE TO N.W. GALLERIES
ARGYLL PLACE FRONT

SCALE ½ INCH = ONE FOOT

ALL DIMENSIONS TO BE CHECKED FROM ACTUAL WORK.



GROUND FLOOR PLAN

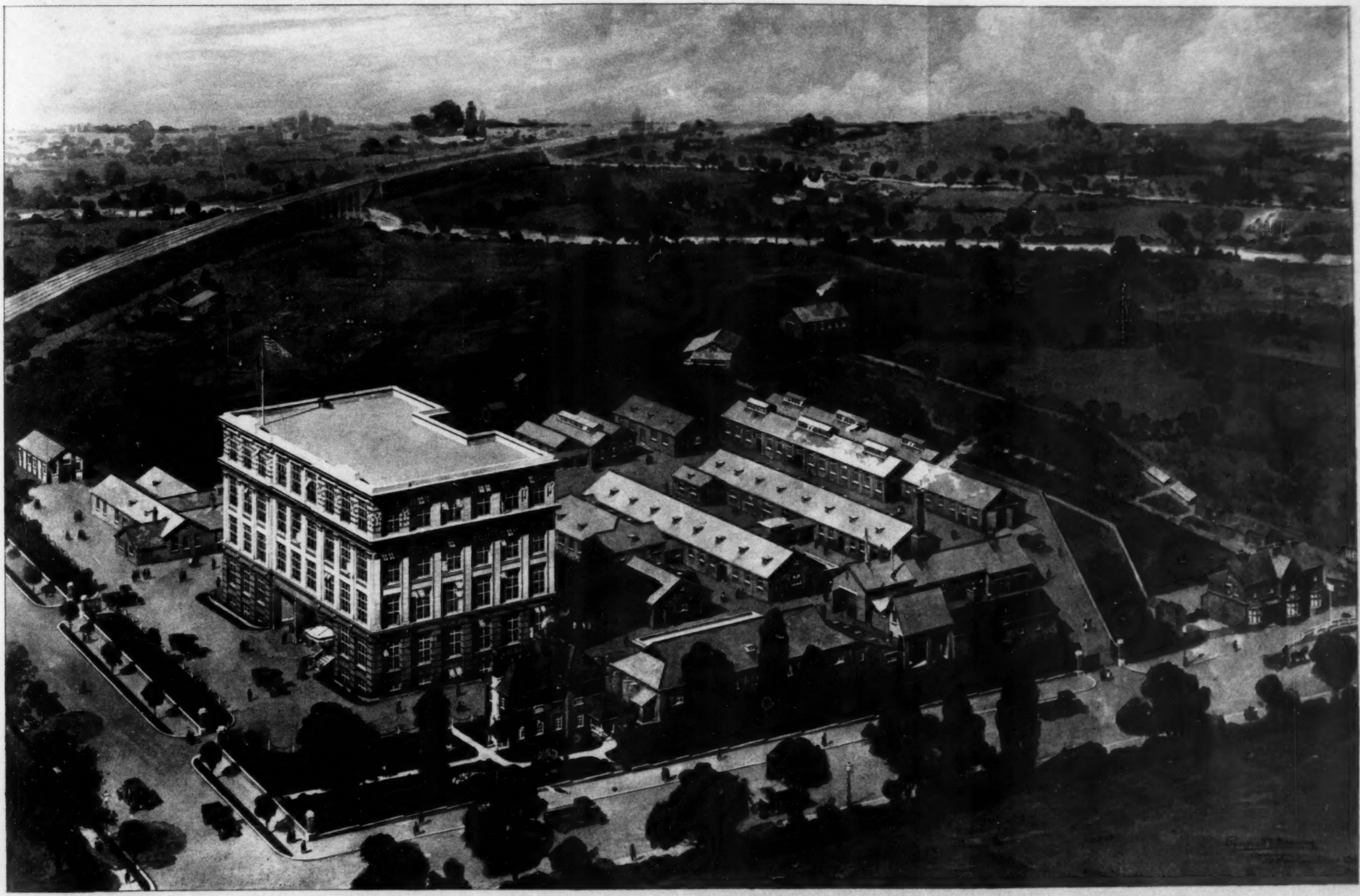


SECTION A A

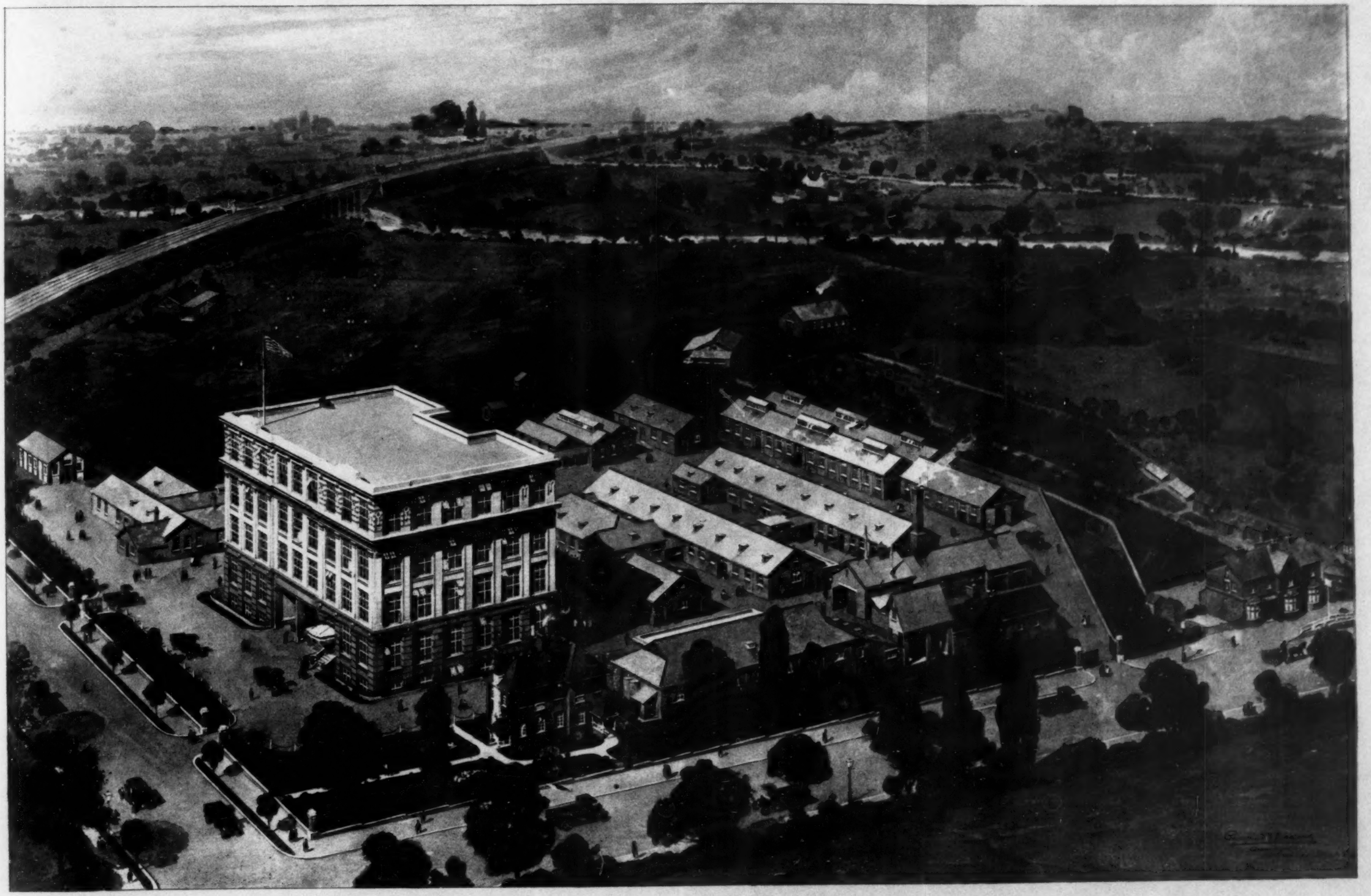
SECTION B B

MESSRS. EDWIN T. HALL, F.R.I.B.A., & E. STANLEY HALL, M.A., F.R.I.B.A., ARCHITECTS.

THE BUILDER, FEBRUARY 16, 1923.



MODEL FACTORY AND OUT-BUILDINGS, MR. GEORGE VICKERY, A.R.I.B.A., ARCHITECT.



MODEL FACTORY AND OUT-BUILDINGS. MR. GEORGE VICKERY, A.R.I.B.A., ARCHITECT.

THE TOWN-PLANNING INSTITUTE.

Town-Planning and Health.

MR. H. V. LANCHESTER, F.R.I.B.A. (President), took the chair on Friday last week, at 92, Victoria-street, S.W., at an ordinary meeting of the Town-Planning Institute, when Professor F. E. Wynne, M.B., D.P.H., read a paper on "The Relation of Health to Site and Use of Site."

PROFESSOR WYNNE said the housing problem, now unfortunately always with them, was one of many facets. At present the most prominent was the economic facet. Stated very baldly, the position now was that there was no margin of accommodation even to prevent existing dwellings from lapsing into a state in which they ceased to be fit for human habitation. As long as this deadlock existed the difficulties would not remain stationary but would steadily increase. The causes of the present condition of overcrowding were not always fully understood. They were naturally sought, and largely found, in war and post-war conditions, but it should not be forgotten that the normal rate of building by private enterprise had declined considerably for some years prior to the war. This decline was generally attributed to the operation of the Finance Act of 1910. That was a question involving political and sociological controversy which he was not competent to discuss, but whatever its causes, this decline in the rate of building in pre-war years was a factor of which they should not lose sight in trying to arrive at what he might call the etiology of the present social disorder.

Another factor generally lost sight of was the total cessation during and immediately after the war of emigration. That was a factor in maintaining the level of population which he believed had not even yet been restored. They were faced accordingly with a population so tightly packed that in urban districts at all events the present rate of building was not sufficient to enable them to evacuate a single insanitary house even for the period necessary to put it in repair, where repair was possible, and, of course, thousands of houses were occupied in every great city which were hopelessly beyond repair. The situation now was that the people who chiefly required houses could not pay a rent which made their erection a commercial proposition, and neither the taxpayer nor the ratepayer could bear the burden which would be imposed by the necessity for meeting the deficit. He maintained that in considering the financial aspect of the question, the appalling economic loss to the community through preventable sickness should be brought into the account. All public health progress would be expedited if their rulers, both central and local, could be convinced that their proposals were based not on any hypothetical philanthropy, but on a solid concrete foundation of pounds, shillings and pence. If the cash value of prolonged life and decreased sickness as between 1875 and to-day could be paid across the counter in gold, all the town halls and all the banks in England would be smothered in the deluge. Of course, that result had been achieved only by an enormous outlay, and it had been directly much more the work of engineers and architects than of doctors. On the other hand, it might be claimed that it was medical science that had set the engineers to work and directed them in creating an urban environment in which the human species could persist. It was, however, to engineers and architects that they had looked, and must continue to look, for the provision of ventilation and water, and for the removal of the waste products and debris of those conglomerations of the human species which at present they regarded as an essential element of civilisation. Given these essentials of survival, it was a good thing that there should be a stolid body of opinion, critical if not sceptical, to consider carefully every proposal supposed to be directed towards the interests of Public Health. The food problem was intimately related to the housing problem, for under the conditions of modern industry more people must be crowded on an acre of land than an acre could properly accommodate. Experience had shown that to be in the nature of a law, and an acre of land would not accommodate more than its due share of human beings, even though their apparent density was diminished by a vertical extension of their dwellings.

He was convinced that the ultimate solution of the problem would only be found in the full use and wise adaptation of modern means of transport, a process which was already imperceptibly revolutionising our social life. With this process must march ideals of town planning which would deal not with acres but with square miles. Only by a centrifugal movement could society recover from that fitful fever whose onset was known as the "industrial revolution." In Sheffield the "industrial revolution" produced a set of conditions which for sheer horror could hardly be surpassed in any city of the world. In a most able and exhaustive Report dealing with insanitary conditions in the town in 1846 a fever-stricken and anæmic population was depicted somehow surviving amid the foul accumulation of their own waste-products, and houses, or so-called houses, crowded on the ground with no other idea than to get as many as possible to the square inch. It was a remarkable fact that the authors of that Report nearly eighty years ago advocated almost every one of the reforms which were still the ideal of the sanitarian. Ever since that time steady progress had been made in sanitary improvement, but they still felt the effects of the initial handicap, and in many parts of the city the sanitary conditions were still deplorable. During the war, when Sheffield became one of the principal arsenals of England, there was an enormous influx of adventitious population, most of whom were still left on their hands long after the tide of employment had receded. That, with the other factors mentioned, had resulted in an amount of overcrowding previously unheard of. Yet during last year their death-rate had fallen to 11.7 and their infant mortality to 80 per 1,000. Those figures were difficult to explain, though there were several known factors in the decline with which he need not trouble the meeting. Naturally, however, some people asked, in view of these facts, why worry about housing? The fact was, of course, that death-rates alone were not a true index of the health conditions of a city. Many of those people, though they avoided dying, were yet not living in any true sense of the word, for life under such conditions was not worth living. Having called attention to and explained a number of charts dealing with the health conditions of Sheffield, Professor Wynne said that on the whole they could trace a tendency to rise in death-rates corresponding to increased density of population when that figure exceeded 50 per acre, and a real serious excess of deaths when the figure reached 100. And yet the density figure rose in places to 260. Before the war the ideal aimed at in housing and town planning schemes was the provision of not more than 12 houses per acre. He hoped that under existing economic conditions they would not permit that figure to become a fetish. He agreed that it was an ideal for which they might ultimately strive, but at present too strict a limitation imposed a financial handicap on any scheme, which might strangle it at birth. When they had to deal with areas in which people were huddled together at the rate of over 200 per acre, it appeared to him that a scheme that would even halve that degree of congestion would do more good by providing a possible environment for a greater number than an attempt to provide the ideal for a smaller number. Besides, they had to remember the evils that inevitably arose at present from sub-letting. As they erected houses now, people took them who could not possibly pay the rent demanded out of their earnings. They did this with the certainty of making the rent, and often more than the rent, by sub-letting one or more rooms. The slum conditions were immediately reproduced, and twelve houses per acre might often represent a population of over 100 per acre. It seemed to him manifest that more good and less evil would have been done by the erection of more houses per acre to house those 100 people, provided some method were found which would absolutely prevent the practice of sub-letting. In any amendment to the Rent Restriction Act there should be either the power to evict or some really deterrent penalty on sub-letting without the consent of the local authority. He understood that it was the desire of the President that the present session of the Institute should be largely concerned with that question of the relation of health to density of population, and that the figure 70 per acre had been suggested, as it were, as a base-line for investigation. He hoped that the Sheffield figures might be of some use as a suggestion for similar work on broader lines, and that at least they demonstrated that any reduction in mortality which had been achieved throughout the country in recent years had been won in face of the appalling handicap of housing conditions which vitiated any claim to more than a very primitive stage of civilisation.

MR. E. R. ABBOTT proposed a vote of thanks to the author and, dealing with the sub-letting problem, expressed the view that with present-day conditions of housing they could not altogether prohibit it.

MR. RAYMOND UNWIN, F.R.I.B.A., contended that where land did not exceed £200 per acre, which was the average price of land for housing purposes in this country, it was an economic proposition to lay out land with not more than twelve houses to the acre. They economised in the construction of the roads, and in the saving of land by having fewer road junctions, whilst a third important economy which particularly affected hilly districts was that they could place the roads where they liked. In regard to slum clearances, they were dealing with a different proposition, and he admitted that it was a problem to lay down any figure of density where land might cost from £5,000 to £10,000 an acre, and where the roads were already made. That was a matter to which they looked to the medical profession for assistance.

MAJOR LOVELOCK admitted that some time since he was in favour of none but the parlour type of houses, but in the present state of affairs he felt that they wanted a type of house sufficient for one family, and which did not give any inducement for sub-letting.

MR. H. STEWART pointed out that slum areas formed a very small part of the area of any town, and in most cases the land would be more suitable for industrial purposes.

MR. POINTON TAYLOR touched on the question of the transport of people when houses were spread out, and suggested that as the members of most families had to go in different directions each day, one spot generally was as convenient as another for the house.

THE PRESIDENT said if they took a town four miles in diameter they had only to add half a mile all round it to double its area.

PROFESSOR WYNNE said that Mr. Unwin had convinced him in regard to twelve houses to the acre for new schemes being economic, but in view of the conditions of Sheffield he thought it would be wise slightly to extend the number. They were trying in Sheffield to rehouse people from the slum areas on the outskirts and hoped, by selling the cleared area for commercial purposes partly to recoup themselves.

Housing Loans in Belgium.

It is reported that in order to give an impetus to building, the Belgian Government is granting loans to builders for twenty years at 2 per cent., on condition that the rent charges do not exceed 4 per cent. of the total capital expended. Further, bonuses which may amount to 3,000 francs each, or about 5 per cent. of the total value of the house, were provided for the first 10,000 persons who would build or buy a house for their own use. Only small houses, fulfilling certain conditions, are covered by this scheme.

Obituary.

The death took place suddenly, at his residence in Westmorland-road, Newcastle, recently, of Mr. Francis J. Hepple, a well-known Newcastle builder and contractor. He was in his sixty-third year.

REMEDIES FOR THE HOUSING SHORTAGE.

BY "CITIZEN."

THE recent controversy between your correspondents, Mr. Yerbury and Mr. Newbold, on this subject is instructive and interesting, but it does not appear to solve the question. I think anyone who has had recent experience of the difficulty of building houses, either for the ex-soldier and working classes or of more expensive type, will know that the cost of labour and materials causes the stoppage. Excessive rates also raise commercial rents on new houses to a point which obviously cannot compete with the artificially restricted rents on old property.

Now, all these three causes are due, primarily and principally, to high wages. The high cost of labour is obviously due to high wages and restricted output. The prime cost of material is mainly the wages of manufacture, for the value of raw materials, such as coal, iron, clay or timber, in the ground, or unwon, is small. Rates are high because Government departments have forced local authorities to raise wages of their employees to one high standard, with bonuses, irrespective of local labour conditions and cost of living. In fact, local government under present conditions is only nominally free or representative.

Surveying the position scientifically, it is clear that the shortage of workmen's houses has been caused since the war mainly by their brethren's demand for high wages and reduced output, which has kept up the cost of building, of living, and of all commodities to themselves and the whole community. Unfortunately, manufacturers have also conspired in rings or combines to plunder the consumer, especially where the Government has under sentimental pressure from the public opened wide the public purse, as in the building schemes pressed unduly on local authorities.

Mr. Yerbury's only remedy for these combines (see *The Builder*, December 22, 1922, p. 970), is the heroic scheme of limiting all manufacturer's profits to ten per cent. How he proposes to investigate and check the accounts of every manufacturer in the land it would puzzle him to devise. The present interference by bureaucrats with trade and property would be paradise compared with the expensive shackles we should all soon have to wear under his régime. The obvious natural remedy for this evil would be to make combinations for increase of prices or restriction of output illegal conspiracies as against public interest. But this remedy, to preserve a semblance of justice between classes, would have to be extended as well to combinations of employees and trade unions, which by strikes, threats, and intimidation may effect artificial increases in the cost of materials to the consumer.

Unfortunately, this unpractical remedy of limiting trade profits is not the worst example of inexact logic in his article. For further on in the same article (p. 970) he says "J. S. Mill laid down that a family should not spend more than one-sixth of its income on rent." He then proceeds to take the income of plumbers, the aristocrats of building operatives, at £4 2*s.* per week, and calculates one-sixth of this sum as 7*s.* Consequently his inferences from such an error are illogical and the superstructure falls on the false foundation. Mr. Yerbury's high sounding advocacy of Socialism, in your issue for December 29, is inspired by the same inexact thinking. "Team spirit" is to inspire the nation as in the great war. Now, in the great national emergency we were certainly inspired and surprised by this great uplift, but practical students of sociology know that such an outburst cannot be permanently reckoned on. So long as human nature rules our actions self-interest is the main motive of mankind. The laws of supply and demand must also be obeyed.

What measures, then, can we take nationally to improve trade and increase house-building? I think your constant demand that the Rent Restriction Act be allowed to expire as soon as possible, if agreed, will eventually enable builders to raise funds to build dwellings for the working classes to return commercial rents. They will still, however, have the old rents of cheap pre-war property to contend with. For these old rents, if restriction be abolished, cannot be materially raised all at once without serious opposition. We cannot hope that a whole nation who earned high wages during the war and enjoyed other people's property at artificially restricted rents will acquiesce in a considerable rent increase without grumbling. Their revolutionary leaders will not allow this if they can gain anything from the Government by agitation. A taste for subsidies soon develops a hunger for other people's wealth. It is an inevitable law which politicians, with one eye on the voter, are slow to recognise. Having now, at long last, got rid of the ridiculous, unprofitable, mischievous Increment Duty (and its authors), which began the house shortage in 1910, we must endeavour to free trade from further political meddling.

In the next place, wages must come down if we are to compete in world trade. It is an unwelcome policy to advocate, but really it is in the interests of the working classes themselves. At the height of the boom Lady Rhondda was congratulating the dockers on obtaining £6 a week, but she added wisely, "If you can get only three days work a week, I don't see that you are much better off with £6 than £3." No one but an extreme labour leader can see any advantage in killing the goose which lays the golden eggs. On this point I find that the rank and file of the building trade are sound, sensible men who deplore their leader's pugnacious doctrines. Many men have told me they would not take a union ticket except to get a job. A labourer explained that his being out of work was due to the high cost of building, because high wages prevented people having repairs or new building commenced. Others expressed themselves in stronger terms. It is a pity the moderate sensible rank and file do not take the rule in their own unions.

Lower wages all round should be balanced by reduced railway freights, lower rates and taxes, and cheaper cost of manufacture, inducing lower cost of living. Thus the working man's reduction of income would be only nominal, as his expenses should be lowered in proportion. The difficulty is to convince him, corporately, of the soundness of this promise. Naturally no one likes to cut down his own or another's income; but if political interference can be stopped, free imports be allowed, and combines of manufacturers be made illegal, natural laws must come into play and the community live free and prosperous again.

One thing is certain: robbing Peter to pay Paul will not produce the millennium, either in Russia or this country—it will only cause unrest, shirking, jealousy, covetousness, and discontent which are the ruin of prosperity. It is the duty of the workers themselves to check this demand for subsidies and fines on capital, as against public policy and welfare. They would be the first to enjoy the resultant prosperity, and would lose nothing in the end. The most effective way to raise wages is to increase employment by effective willing work.

Of course, it is also necessary for master and man to treat each other fairly and honestly, but in my experience this was generally the case until trade unions were given unlimited power of combination and freedom for general strikes to coerce the community, since which the extremists have preached plunder in the name of justice. This, one is glad to say, has not been general in the building trade. Workers still have the remedy in their own hands, and prosperity is theirs for the reward.

There was never so much need and demand for cheap building of homes as now. Prosperity in the building trade can be assured by informed and exact thinking, by freedom, good will, and resultant reduction of cost. Sentimental and illogical altruism, if unfair to the other side, will check recovery and progress.

SIR KINGSLEY WOOD AND RENT RESTRICTION

WE find it a little difficult to follow Sir Kingsley Wood's views on Rent Restriction. In a paper by him, read at the meetings of the Law Society in September, we understood he expressed the view that Parliament should as speedily as possible repeal the whole Statute, which he explained by saying that some protection should be extended until about 1924, but that various curtailments and modifications might be made in the interval with a view to terminating the measure in that year. He did not favour such a drastic curtailment of the Act as would limit its operation to houses of £35 in London and £26 in the country, as that would savour of class legislation and be unfair to the middle classes.

After the Interim Report of the Committee had been presented, Sir Kingsley, in a letter to *The Times*, October 23, wrote that he considered the evidence overwhelming as to the recommendation of the Committee not to allow the Act to lapse this year, and again stated that any curtailment of the rental limits would be a curtailment of the Act at the expense of the middle classes; but in that letter he recognised the hardship the Act imposed on both landlords and builders.

In *The Times*, February 12, Sir Kingsley Wood is reported as saying: "The proposal that tenants paying rentals between £52 and £73 in the country and £70 to £105 in London should lose the protection of the Act next June will, I feel confident, meet with most strenuous opposition. This, coupled with the suggestion that middle class houses and flats with rentals of £35 to £70 in London and £26 to £52 elsewhere are also to be unprotected after Midsummer, 1924, is most unfair to the middle class man and woman. . . . I fail to understand how anyone can with any confidence forecast the housing situation in 1924 so as to justify decontrol in that particular year. Houses should come first, decontrol next."

These are only extracts from observations *The Times* reports Sir Kingsley to have made, but we venture to draw attention to them because, as we understand it, in the paper before the Law Society, 1924 was the date mentioned by Sir Kingsley when restriction might be removed; but quite apart from this question of dates there is a more serious point. Sir Kingsley recognises that the Rent Act checks the supply of houses, yet he says "houses should come first, decontrol next," which appears an unsound argument, and, further, in this connection he is reported in *The Times* to have said: "The public should know that the restrictions of the Rent Acts do not apply to new houses. There is, therefore, every encouragement to a builder to erect a new house because he can charge what rent he likes, and that at a time, it is to be noted, of considerable house shortage."

May we respectfully point out the fallacy of this argument? In the paper read at the meeting of the Law Society Sir Kingsley said that out of 8¼ million houses in Great Britain the present Act dealt with all but two hundred thousand, and if this be the case that the vast majority of the houses of the country are compulsorily let at uneconomical rents, how can the field be open to persons to supply houses at any rent they like. It is a proposition economically absurd, for where over eight million houses are offered with a standard rent attached the market is closed to those who can only offer a house at a rent above that standard, and people will huddle together in protected houses.

The Rent Restriction Acts are class legislation and have all the qualities of legislation of that character. They raised class questions when they were introduced, and they must raise class questions when they are withdrawn, but mere delay in their withdrawal will not prevent some objections being raised, and the withdrawal in stages will tend to limit the opposition of a privileged class, whilst gradually freeing the market from restrictions and encouraging the provision of housing accommodation.

THE BUILDING TRADE.

INDUSTRIAL STATISTICS, 1922.

We have usually at the commencement of each year, when the statistics for the past year have become available, given a brief survey of economic conditions so far as they can be gathered from such statistics, for however dark may seem the immediate prospect, the study of the past may disclose some elements not only of hope but of use for future guidance.

Unemployment.

The main problem at the moment is unfortunately not the positive of employment but its negative unemployment, for the depletion of capital owing to the war and the dislocation of all foreign markets checked employment. The long continuance of unemployment has accentuated its evils, since private and public funds have become more and more depleted and the lot of those without employment has consequently become harder. This fact makes the problem seem worse than it was even at the commencement of last year, and causes a gloomy view to prevail in most quarters, but the statistics available appear to show that, although unemployment is more felt where it occurs, yet in the bulk there is not quite so much as there was in January last year. Thus, the *Labour Gazette* shows that in January, 1922, amongst insured workpeople the percentage of unemployed was 16.1, whereas in December it was 12.2, and in the same period there was also a substantial reduction in the number working short time. The figures for the trade unions are not so favourable (16.8 as against 14 per cent.), but it is pointed out in the *Gazette* that amongst trade unionists a larger proportion were employed in specially depressed industries—engineering, shipping, and allied trades. Apart, however, from these percentage figures, the number of applicants on the live registers of the Labour Exchanges can be referred to, and here again a slight improvement is shown, *viz.*, January 10, 1922, 1,882,000, as compared with 1,542,000 on January 1 this year. Therefore, as we have said, although unemployment is terribly rife, the actual conditions are a trifle better than at the beginning of last year.

Trade Disputes.

Trade disputes show a diminution in the number of workpeople involved, in the number of disputes, and the working days lost, and we give the figures:—

1921.—763 disputes, involving 1,829,000 workpeople; 85,872,000 working days.

1922.—565 disputes, involving 555,000 workpeople; 19,918,000 working days.

These figures are more satisfactory so far as the particular year is concerned, especially as it has been a period of falling wages, but they show that history repeats itself and that experience does not bring wisdom, in that disputes occur when trade is good and diminish when times are bad, and the evil effects of this remain undiscerned. Directly international and other conditions admit of expansion in trade the natural growth of industry is checked by internal troubles, with disastrous results. In the beginning of 1921 trade had some life still in it, but the industrial barometer was falling, and there was every indication that bad times were coming, yet when work was available we find close upon 86 million working days lost. How would those millions of working days have affected the position in the past year? Trade in 1921, being still moderately good, was bringing in profits which would have been available to assist employers and employed to tide over the bad time caused by unavoidable circumstances, but the disputes (including three months in a key industry) hastened the collapse of trade and dissipated accumulated savings, and thus precipitated unemployment and left the nation less able to cope with it. When the lean times came comparative industrial peace reigned, but that is not the same as peace in prosperity, for in bad times works are often only kept open to provide labour and to obviate the loss of shutting down, and little profit can be made and no provision for times of inactivity.

A great deal is being written and said about the capitalist system at the present time, and all the unemployment is being attributed to that system, but very little is said about the difficulties capitalism has to contend with from lack of co-operation with labour. The trade unions set their faces against any schemes which are devised to give capital and labour a community of interest, for, as was shown in the Lever litigation, the trade unions fear that community of interest with the employer may sap the loyalty of the workman from his union, and co-partnership and other schemes are practically prohibited.

In a recent work by those social reformers, Mr. and Mrs. Webb, we believe it is admitted that until about the middle of the nineteenth century capitalism could claim that in a hundred years it had produced on balance a surprising advance in material civilisation for greatly increased populations, but then they assert that from that moment it has been receding from defeat to defeat, beaten ever more and more hopelessly by the social problems created by the very civilisation it had built up. It may be asked, is this so much an indictment of capitalism as of the system that has grown up round it? If it be admitted that a system had produced excellent results for a hundred years the onus of proving that system unsound must lie on those attacking it, and the date fixed upon, the middle of the nineteenth century, for the decadence of the system is a little significant. Up to about that date, no doubt, the conditions of the industrial population left much to be desired, but since then the outside demands on capital for social purposes have steadily increased. Much-needed factory reform was instituted, and in the later days of the century all kinds of remedial legislation was introduced—workmen's compensation, old age pensions, and so on—whilst the administration of the poor law was relaxed, and in 1871 the trade unions were given the increased powers which have since been added to, culminating in putting obstructive tactics outside the law of the land.

Capital has to bear all these burdens; the camps of capital and labour are divided, and industrial strife is encouraged. Therefore the question appears to be not whether capitalism, which up to a point was admittedly a success, stands condemned, but whether the civilisation it has created does not exceed in its demands results which no system can provide.

No substitute has been so far tried with success. The industrial activities of municipalities, for instance, show that undertakings worked with profit in private hands cease to become profitable under municipal control, and the experience of Government control during the war taught the same lesson. The point for investigation seems to be whether any human system could support the demands of a civilisation which necessarily so enhance the costs of production as to make the price of the products excessive for the world's capacity to pay, and, before we scrap the admittedly successful system which has advanced the country for 100 years, some system which can support the additional burdens of the civilisation demanded should, so to speak, be put on the market and tried on a small scale. This leads us to the next table of statistics, for a higher standard of living is one of the demands of civilisation which also falls on capital.

Wages and the Cost of Living.

The number of workpeople who sustained reduction in the rates of wages was slightly greater in 1922 than in 1921, the figures being respectively 7,578,000 as against 7,175,000, but the net decrease in the weekly wages was considerably less, being £4,206,000 in 1922, as against £6,041,000 in 1921, and the reductions were less at the end of the year than those made in the earlier portion. The average result is stated to be a reduction of about 20 per cent., leaving the average percentage increase over pre-war rates at about 70 or 75 per cent. The cost of living for working-class families maintaining the pre-war standard of living is stated in the *Labour Gazette* to be about 78 per cent. above July, 1914, as compared with 92 per cent. at the end of 1921.

Since the war it has practically been admitted that the cost of living has a direct bearing on wages, and scales for reductions in wages were fixed having relation to the cost of living. An interesting discussion has been proceeding in the Press on the index numbers, and it is obvious that it is of extreme importance that the most accurate system should be adopted, but we cannot enter into this question in the present article.

The Building Trade.

In the building trade, according to the *Labour Gazette*, both the numbers of workpeople sustaining reductions and the net reduction in rates of wages were greater than in 1921, *viz.*, in 1922 509,000 workpeople as against 447,000, the net decrease in the weekly wages being £392,000 as against £305,000, which it is stated represents a fall of 18 to 23 per cent. It is stated that the only large body of workpeople whose normal hours of work were reduced in 1922 were building trade operatives, for whom, with certain exceptions (including plumbers in several districts), the recognised hours in December and January were reduced from 44 to 41½ per week.

As regards disputes, the building trade always sets a good example, and we trust that, despite the questions now in issue, this year may prove no exception to the rule. In 1922 the number of disputes was 62, as against 135 in the previous year; the workpeople involved numbered 8,000, as against 26,000; and the duration in working days lost was 170,000, as against 538,000.

Conclusion.

The long-continued anxiety from the state of affairs all the world over, the disappointment attending the peace, and the depression of industry, have placed a very severe strain on all classes, and may well give rise to a spirit of discontent. The industrial statistics we have given show that on the whole the nation is bearing this time of trial well, and they also show a faint revival in industry in the lessening, small as it is, in unemployment, and it is very important that hope deferred should not turn the heart sick and the mind to quack remedies to supersede the tried order of things. The nation is ready to consider with an open mind experiments made on a small scale, but a universal upheaval can only lead to worse conditions. Industrial peace is an essential also if trade is to be cultivated in the very barren soil at present available, and patience and good will can alone be used to assist the crop, feeble as it is in adverse conditions, upon which the nation has to depend.

THE REPORT OF THE RENT COMMITTEE.

THE report of the Departmental Committee on the Increase of Rent, &c., Restrictions Act has now been issued. It is stated that twelve out of the fourteen members constituting the Committee have signed the report, but only four of these without reservations. The minority was formed of the two Labour members.

Withdrawing Restrictions.

The majority report recommends that all restriction should be removed at the earliest possible date, and that the further period of restriction should be regarded as a transitional period, and accordingly the new Act should aim at the gradual withdrawal of control during the transition period. Then the report states that the houses first brought within restriction by the Act of 1920 shall not be included in the new Act. To appreciate what is the meaning of this recommendation it is necessary to consider the course of legislation, for the report recommends that houses brought in under the Act of April, 1919, shall continue protected until Midsummer, 1924.

Now, under the Act of 1919, the limits of protection were £70 in the Metropolitan Police District, £60 in Scotland, and £52 elsewhere, but it is important to note that in that Act there was the further qualification that "*both* the annual amount of the standard rent and the rateable value" should exceed the limits prescribed by the Act of 1915, but neither the limit named in the Act of 1920. In the Act of 1920, as in the Act of 1915, the qualification is "where *either* the annual amount of the standard rent or the rateable value does not exceed" the amounts prescribed. Therefore, if the recommendation of the Committee is carried out, rent restriction will revert to houses where both the standard rent and the rateable value do not exceed £70 in the Metropolitan area, £60 in Scotland, and £52 elsewhere.

That protection will cease at Midsummer, 1924, but the remaining classes of houses—that is to say, the houses under the Act of 1915, where either the standard rent or the rateable value does not exceed £35 in the Metropolitan area, £30 in Scotland, and £26 elsewhere—will remain protected until Midsummer, 1925. In Scotland the dates are a little different, as in each case restriction is to cease on May 28 instead of Midsummer. It would appear advisable, should this recommendation be adopted, that the provision as to rent and rateable value adopted in the Act of April, 1919, should be altered to that contained in the Act of 1915 and 1920, as this would save complication.

Recommendation 5 is as follows: "When any house to which the Act applies is or becomes wholly vacant after the publication of this Report it shall be withdrawn from the scope of the Act." This apparently applies to houses within the present Act, but the following recommendation applies to the proposed new Act, and gives the tenant the option of contracting out of that Act by entering into an agreement with the landlord, enforceable by both parties, for a lease of the house, such lease to run to any date to which the parties may agree, to extend beyond the date at which the new Act ceases to apply to the house on any terms as to rent, &c., which may be agreed upon; but in the case of houses of the lower value which are to be protected until 1925 such lease is not to be valid until the landlord has obtained approval by the Court. It is recommended that licensed houses shall not come within the scope of the new Act. (Recommendation 8.) So far we have only noticed recommendations which are directed to reduce the restrictions at present imposed, but there are a number of recommendations on points as regards houses remaining subject to restriction which suggest a continuance of litigation under the proposed Act if they are adopted.

Right to Possession.

The following modifications are suggested in connection with the restrictions on right to possession contained in the present Act. A definition of "alternative accommodation" is given: "accommodation reasonably suitable to the residential and other needs of the tenant and his family." An owner of a house who became the owner before the date of this Report, if he requires possession of his house, shall be entitled to it without any condition as to alternative accommodation, provided he has given his tenant at least three months' notice to quit, such notice not to expire before Michaelmas, 1923, and provided, if the person did not become an owner before December 31, 1921, the Court considers greater hardship would be caused by refusing the order for possession than by granting it. It is such provisions as these which seem to suggest a continuance of restrictive legislation, for an elaboration of existing provisions will only foster the cry that house property must always be subject to control.

The same objection does not, however, apply to the following recommendations:—

(*a*) That when a house is required for an employee the employee need not be at the time actually in the employment but about to be employed. (This is clearly intended to get rid of the difficulty disclosed in Spencer *v.* Fox to which we drew attention May 19 last, in which case it was held that the employee must actually be employed by the employer when the order is made.) (*b*) That the provisions whereby possession can be obtained by public authorities and statutory companies should be extended to a private person or company carrying out improvement works. (Some such provision is contained in section 13 relating to business premises, which has now lapsed, but under that section a very limited interpretation was placed upon the expression, "schemes of reconstruction or improvement" (see Mitchell *v.* Townend, *The Builder*, January 28, 1921), and probably this would also be applied to the recommendation now made, *i.e.*, that the improvement must be one desirable in the public interest.) (*c*) That the present provision whereby a landlord can obtain possession if a tenant is a nuisance or destructive should be extended to lodgers and sub-tenants.

Sub-Tenants.

Recommendation 10 in the summary states that the position of sub-tenants shall remain unaltered, save that so long as the tenant is protected against excessive charges by the landlord it is suggested that the sub-tenant should equally be protected as against the tenant, but at the same time tenants should be permitted to charge the sub-tenant some strictly limited addition to the permitted rent to recoup him for the additional wear and tear or for structural alterations necessitated by the occupation of the house by more than one family. It is further proposed that the landlord, as well as the sub-tenant, should be given the right to apply to the court to determine the permissible charges. This recommendation, like many others, seems to us inconsistent with the general recommendation that the new Act should aim at the gradual withdrawal of control.

Other recommendations are that no tenant shall have the power to sublet or assign the whole of the premises to the same person for any period extending beyond the period of his contractual tenancy so as to confer on the sub-tenant or assignee a right to remain after the termination of the term. That a person ceasing to reside on the premises shall retain no rights under the Act after the determination of his contractual tenancy if he has sublet or assigned the premises and whether in one letting or in two or more lettings, and that where a tenant gives his notice of his intention to quit, the position of the sub-tenant shall not be affected.

Rating.

Two recommendations affect the rating question. It is suggested that that very difficult subsection (9) of section 12 which relates to the rating of new houses should not be re-enacted, and it is proposed that the new Act shall contain a provision which shall do away with the point decided by the House of Lords in Nicholson *v.* Jackson (see *The Builder*, August 5, 1921). That is to say, where a landlord under the Poor Rate Assessment and Collection Act, 1869, has entered into an arrangement with the overseers that he will be responsible for the rates whether the house is occupied or not, and receives a rebate in consequence of that arrangement, the benefit of that rebate is to go to him and not to be accounted for to the tenant in an increase of rent to meet an increase in rates.

Notices of Increase.

We now come to two very important recommendations numbered 17 and 18, and we set out the summary in full:—"That notices of increase of rent should be simplified so that on them the landlord need only inform the tenant of the amount of increased rent he claims, but that the landlord should be bound to supply the tenant with particulars as to standard rent, rates, &c., whether the tenant demands them or not. Any increase in rent which is in excess of the legal increase should be invalid only in respect of the excess."

"Attention is called to the serious hardships on landlords owing to the fact that under the present Act they may be called upon to repay excess sums extending back to 1920. Under the earlier Acts only six months' excess payments could be reclaimed. If, however, the above recommendation is accepted the point will lose much of its importance, since a *bona fide* mistake on the part of the landlord will only invalidate a notice for increased rent in so far as the increase of claimed rent exceeds the permitted increase. Therefore no specific proposal to limit the tenant's right to refund of increases in excess of the permitted increases is put forward."

It is to be noticed that the Committee appears to have made no recommendation with reference to the very difficult questions that have arisen in connection with the case Kerr *v.* Bryde and the giving notice to determine tenancies before an increase in rent can be demanded. The remaining recommendation requiring notice is that a landlord should be prevented from evicting a statutory tenant immediately on the lapse of restrictions without reasonable notice.

Conclusion.

We consider the recommendations of the Committee far too elaborate, but when the full report is available we shall better be able to see how far the recommendations remodel the existing Act, for the retention of certain sections is especially indicated and from the summary it is not clear how much or how little of the existing Act will be retained. In our opinion, litigation would be avoided by simply lowering the limits of rental in stages as directed with as little of the existing or new machinery as possible. A new code for an Act that is to diminish in extent the first year and to cease altogether in the second year will only tend to crystallise the legislation and tend to make people who are protected call for its continuance, and the Committee itself recognised the necessity of gradually withdrawing all control. There is also this very significant note appended to the majority report:—"On the whole we cannot but conclude that the Rent Restriction Acts, although their necessity in the past may not be challenged, have had an adverse effect on the provision of new houses. They have helped to prolong the shortage of accommodation which rendered them necessary, so that if the country is ever to get back to the position whereby the bulk of its houses is to be provided by private enterprise the sooner all restrictions are removed the better."

We are in hearty agreement with these observations, and we may add that in many quarters it seems to be forgotten that rent restriction was a purely war measure, yet nearly four and a half years after the signing of the Armistice we find a new measure of some elaboration continuing restrictions being recommended.

MANUFACTURE AND USES OF BRICKS.

A PAPER on "Bricks" was read by Mr. Arthur E. Brown, B.Sc., at the Northern Polytechnic Institute, Holloway, London, recently.

After dealing with his subject from an historical point of view, Mr. Brown said clay was one of those baffling substances that at heart was always more or less the same, but in behaviour varied considerably. The result was that the trade of the clayworker, whether he be brick or tile maker, a maker of pottery or sanitary ware or drainpipes or electric insulators, was beset with endless technical difficulties. In the South they knew the younger clays best, and they were the first used for making bricks. Many millions of bricks were made every year from those clays, which were known geologically as post-tertiary, and which had been deposited by lakes and rivers or even by ice. They were also called surface clays. All over the Eastern Counties there were both small and large brickworks making bricks of these clays. Some were made by machinery, but by far the larger proportion were made by hand with a sanded surface.

For many years two kinds of bricks had been made in that way: sand-faced red facing bricks and London stocks. Because of the presence of chalk in the clay and the clamp method of burning, they got a good deal of variation in the quality of the London stock, which was unavoidable in that method of manufacture. London consumed huge quantities of the bricks, sold at prices depending on the quality, and classed as "place bricks," "best stocks" and "hard stocks." The Fletton brick had in recent years competed strongly with stock bricks in the London building trade for inside work, but hardly at all for facing work, for which the "best stocks" were generally used, if red facing bricks, which cost more, were not selected. A certain quantity of machine-made "wire-cut" bricks was made from the red burning surface clays. They were, as a rule, used near the works that produced them, and did not come into London to any important extent. Sand-faced red facing bricks were the most favoured of the architects. Those made from surface clays, and one or two of the later geological clay deposits of the tertiary period, were preferred above all others for their artistic appearance when well burned. The surface clays all had a considerable proportion of sand in them, almost always over 50 per cent. Some of them had so much sand in them that the bricks made from them would only just hold together until burned. Then the result was the "rubber" brick of bright red colour, greatly esteemed when the Queen Anne style of architecture was in vogue, and still used for what was called gauged work in arches, pilasters and quoins.

Now the call was for a great range of colours or shades of red all intermixed, with brown, black, and mottled shades added. In thickness the Queen Anne 2⅞ in. size gave place to 2⅝ in., 2½ in., 2⅜ in. and 2 in. With the change in colour and size came also a demand for a brick of rougher surface and less regularity of shape, and the brickwork was built with much thicker mortar joints, twice the thickness of those allowed in Queen Anne work. The white Suffolk brick was now very little used. At Fletton, just outside Peterborough city, a huge industry had been created, because there the Oxford clay was just right for making Fletton bricks. The curious thing about the clay was that it contained oil. The Kimmeridge clay contained still more oil, which could be extracted, and a good deal had been said about extracting it from the Oxford clay at Peterborough. The oil in the clay made all the difference to the brickmaker, because such oil as there was in it cost, say, 1s. per ton, and was worth as much to him as coal at 30s. per ton. There was nearly enough in it to burn his bricks, and that was one of the reasons Fletton bricks were so largely made.

The Fletton brick was a good brick with certain limitations. It was hard and square and not heavy to handle, and travelled well by rail and by road, and it was cheap. It was also indispensable, for without its production there would not be enough bricks to go round when the building trade was normal. The wrong thing was to use the Fletton brick for everything and everywhere, just because it was cheap. That was what had been and still was often done, but a good many misfortunes had attended that false economy, because the Fletton brick was not calculated to last well in damp places or in foundations, or even in walls where it was used for facing. The chief reason why that was so was because it was made by the "semi-dry" system. If they made a brick with wet or plastic clay it was all well bound together, and when well burned was almost everlasting. When, however, a clay was used in a state all but dry, as it was at Peterborough, and that clay was ground up into small pellets, which were pressed together by strong presses, the pellets did not unite in the same way as they would if wet and plastic. They stuck together and interlocked, but they did not unite. Burning in the kiln would not unite them, and if they broke a brick and looked at it with a magnifying glass they would see the granular condition of the material. In the course of years it had been found that bricks made in that way would not stand damp and frost, unless the clay was actually vitrified or melted together in the kiln. They might last a good long while, but sooner or later they began to powder on the face and rot away. This did not occur when the bricks were used in the inside of dry walls.

After the Oxford clay one of the most important formations used in brickmaking was the triassic, still among what was known as the secondary period. It was there that were found the marls, older than the Oxford clay, which yielded splendid red bricks in many parts of England. The red marls were used in many counties of England. The principal centre was Leicestershire, which sent large quantities of high quality smooth-faced red facing bricks into London. The bricks were much harder and stronger than those made of surface clays in the South. It would interest them to turn to the question of the strength of bricks. The following table showed the weight in tons per sq. ft. required to crush the various kinds of bricks they had considered, except that he had no figure to give them for the Reading bricks. They might take it that those closely approximated to the strength of the Bracknell bricks:—

TABLE OF CRUSHING STRENGTH OF BRICKS.

	Tons per sq. ft.
London stock brick	100—150
Essex and Suffolk hand-made red facing	170
Bracknell hand-made red facing	225
Gault white brick	240
Wealden engineering brick	500
Fletton brick	250
Red marl brick, Leicestershire, and others	350
Red marl brick, North Wales	400—500
Staffordshire blue brick	500—700
Lime-sand brick	160

There was a very important difference between the strength of a brick and the strength of the brickwork built with it. It had been found that the bricks themselves required from 2½ to 4½ times the pressure to crush them that was required to destroy brickwork built with them. The difference was to do with the strength or resistance of the mortar joints, cement joints being stronger than lime mortar joints. A Leicestershire brick, for example, required 350 tons per sq. ft. to crush it, but brickwork built with it in lime mortar failed at 100 tons, and in cement at 150 tons per sq. ft. A Staffordshire blue brick, which was stronger than the Leicestershire brick, was not much better when built up, and failed at 200 tons with cement joints. Referring again to the bricks made from marls, besides the Leicester area, they were produced in Warwickshire, Lancashire, Yorkshire, Lincolnshire, Staffordshire and Somerset. Marls of still older formation were used in North Wales. Staffordshire and North Wales marls also served for the manufacture of the well-known blue bricks, which were the hardest and strongest bricks made. They had been used in huge quantities by railway companies in building bridges, embankments, walls, cuttings, &c. They owed their dark-blue colour to two things. In composition the clay contained an extra large proportion of iron oxide; and the method of burning, with what was called a reducing atmosphere in the kilns, turned the red ferric oxide into a blue-coloured iron compound containing less oxygen. The "reducing" atmosphere in the kiln drew away part of the oxygen from the clay.

In the North of England they found the oldest clay beds of all which were used for brick-making.

Fireclay formed the basis of the beautiful glazed bricks made at Leeds and elsewhere. Those, of course, were much used in London and other cities for many purposes; white ones for facing the interior of courts and passages where light was scarce and dust and dirt plentiful. They were also used in various forms and in varieties of colour for walls of lavatories and bathrooms. First in importance, an importance that would grow to a considerable extent in the near future, were hollow bricks, or, as the Americans called them, "cavity" bricks. Hollow bricks were made of burned clay, plaster or cement mixed with coke breeze. They were used for partition walls inside buildings for the most part, and when made for that purpose were made in large dimensions, as regarded length and width, and of small dimensions as regarded thickness. Thicknesses of 1¼ in., 2 in., 2½ in., 3 in. and 4 in. were usual. Plaster slabs were made as long as 4 ft., and as wide as 12 in. Burned clay partition bricks were made of less length, usually 12 in., and from 6 in. to 9 in. in width.

One other kind of brick should be mentioned, the lime-sand brick. It was made of sand mixed with from 7½ to 10 per cent. of slaked lime, and formed into brick by great pressure in a machine similar to that used at Peterborough for making Flettons. The bricks were not burned, but were hardened by being treated in large boilers, or "auto-claves" as they were called, by steam at low pressure. The process was complete in from eighteen to twenty-four hours, and the bricks made were fairly hard and of good shape. Lime-sand bricks were used for facing buildings in Germany and America in large quantities, but architects in England did not like the cold grey colour of them, and would use them only for internal work. They cost more to make than Flettons, stocks or wirecuts, and therefore did not pay well enough to be largely made.

A vote of thanks to the lecturer was proposed by Mr. T. P. Bennett and carried with acclamation.

STAFF DINNER.

The associated companies of Stanley Jones & Co., Ltd., and the Brilliant Sign Co. (1907), Ltd., held their annual staff dinner at the Restaurant Frascati on Friday last week. The Governing Director, Mr. F. G. Lucas, presided. The Chairman delivered an address in which he dealt with the essentials that he considered should constitute a good staff.

Mr. Lambert (Works Director) gave the toast of "Our Works," which was received with enthusiasm.

Mr. Trangmar (Finance Director) dealt very fully with the branches.

Mr. Roe (Shopfitting Superintendent) toasted the company.

Mr. Aldridge (Advertising Agent) proposed the toast of "The Press," and Mr. Sutton proposed the toast of "The Chairman."

NEW BUILDINGS IN LONDON.

Metropolitan Railway.—EXTENSION OF LINE.—The general manager of the Metropolitan Railway has written to the secretary of the Middlesex Ratepayers' Federation stating that the question of extending the company's line beyond Finsbury Park is still being considered as a scheme to be proceeded with when circumstances permit.

Endell-street.—PREMISES.—With a view to raising part of a sum of £10,000 needed for the new premises in Endell-street, which have been acquired by St. Paul's Hospital, a "gift auction sale" is to be held at Selfridge's (by permission of Mr. Gordon Selfridge) on the 28th inst.

Hackney.—LAUNDRY.—The Hackney Union are to undertake the erection of a new laundry, coal bunker, yard paving, drainage, and other works, at their Central Institution, Sidney-road, Homerton, E. 9. The architects are Messrs. Finch, Gunn & Finch, 18, London-street, Paddington, W. 2; and the quantity surveyors are Messrs. Hood Bros., 8, Union-court, Old Broad-street, E.C. 2.

Regent-street.—RECONSTRUCTION OF PREMISES.—Messrs. John Abrahams, Ltd., of Wedmore-street, Holloway, N., have recently completed the demolition of No. 203, Regent-street, W., preparatory to the reconstruction of premises for Messrs. Huntley & Co. The architects are Messrs. Yates, Cook & Darbyshire, 43, Great Marlborough-street, Regent-street, W. 1. The main contract has been placed in the hands of Messrs. O. P. Drever & Son, Ltd.

Hampstead.—DECORATION—Messrs. T. W. Heath, Ltd., 29-33, Christchurch-street, Chelsea, S.W. 3, have secured the contract to paint the outside of the Convent of Bon Secours de Troyes at Hampstead. They have also signed a contract with the Air Ministry for reconditioning the barracks at Eastchurch.

Gray's Inn-road.—"DAILY SKETCH" BUILDING.—The sub-contractors on this contract are as follows: Metal windows, The Luxfer Prism Syndicate, Ltd.; constructional engineering, Edward Wood & Co., Ltd, Manchester; glass and glazing, Alfred Goslett & Co, Ltd; heating and ventilation, Ashwell & Nesbit, Ltd; sanitary fittings, H. Pontifex & Sons, Ltd.; reinforced concrete and asphalte, Lancashire, Brunswick Rock Asphalte Co., Manchester.

Chelsea.—DWELLINGS.—The Borough Council intend to proceed with the erection of working-class dwellings upon a site in Hortensia-road.

Marylebone.—FLATS.—The Metropolitan Borough are to erect two blocks of tenements at Fisherton-street.

Woolwich.—EXCHANGE.—A telephone exchange is to be erected at Woolwich, S.E., for the Commissioners of H.M. Works.

Walthamstow.—SHOPS.—The work of erecting twelve lock-up shops with flats over, in Forest-road, is to be proceeded with by the Urban District Council.

Hackney.—ALTERATIONS.—Messrs. E. A. Roome & Co. are carrying out alterations at the "Elephant" public house, Kingsland High-street, Hackney.

Hammersmith.—HOUSES.—A site on the Wormholt Housing Estate has been let by the Borough Council to the London Electric Railway Co., on which to erect thirty houses for the accommodation of persons dehoused as the result of the railway extension.

Kingston-on-Thames.—FOUNDATIONS, &C.—Messrs. W. H. Gaze & Sons have received the contract for the foundations and builders' work in connection with the installation of additional plant at the Town Council's Electricity Works.

Leyton.—SCHOOL.—The contract for the erection of a school for 400 boys at Canterbury-road, Leyton, E. 10, for the Education Committee of the U.D.C., has been placed in the hands of Messrs. F. J. Coxhead, Leytonstone.

Belvedere-road.—ALTERATIONS.—In connection with the adaptation of 23, Belvedere-road and garage block at rear for the accommodation of a portion of the Tramways Department, for the L.C.C., Messrs. L. H. & R. Roberts, 114, Lower Clapton-road, E. 5, have provisionally secured the contract.

Hackney.—EXTENSION.—Mr. A. Monk, Lower Edmonton, is to carry out the extension to the Hackney Institute, for the London County Council. The cost will be £5,888.

Highbury Fields.—SWIMMING BATHS.—Messrs. John Garrett & Son, 83, Balham-hill, S.W., are to construct open-air swimming baths at Highbury Fields and Southwark Park, for the London County Council, at a cost of £5,169 and £4,999 respectively.

Hackney.—REBUILDING.—The rebuilding of the London Fields Council School, for the London County Council, has been placed in the hands of Messrs. C. P. Roberts & Co., Ltd., 36, Tyssen-street, Dalston.

Marylebone.—PLANT EXTENSION.—Messrs. Ashby & Horner, Ltd., will carry out the builders' work in connection with the plant extension scheme at the generating station, for the Borough Council; and the structural steelwork will be undertaken by Messrs. Sanders & Foster, Ltd.

Knightsbridge.—REBUILDING.—Messrs. Harvey, Nichols & Co., Ltd., Knightsbridge, contemplate carrying out extensive alterations to their premises. The demolition work, which has already commenced, is in the hands of Mr. Horace A. Cunis, who will also carry out the rebuilding.

NEW BUILDINGS IN SCOTLAND.

KIRKINTILLOCH.—The Dean of Guild Court has passed plans for a nurses' hostel at Broomhill. The plans are prepared by Mr. John Shanks and provide for 36 bedrooms, with sitting room and lavatory accommodation. The hostel is to be erected immediately to the west of the main building and facing the avenue.

BERWICK.—The Guardians have agreed to lease a portion of the workhouse premises to the Town Council for conversion into a model lodging house.

PERTH.—The Town Council is recommended to purchase the Viewlands site for the proposed golf course and the Burgh Surveyor and the Superintendent of Insches have been requested to prepare detailed plans and estimates to include the erection of a club-house. The probable cost of first lay-out of ground is £1,400.

EDINBURGH.—The Dean of Guild Court has granted warrants to reconstruct tenements and to build 12 houses at Jackson's-close, High-street. Mr. E. J. Ritchie has been authorised to erect a villa and a garage at Orchardhead-road, Liberton, and A. & R. Scott, Ltd., to erect a power house at West (flour) Mills, Colinton.

DUNDEE.—A sum of £20,000 has been given by Mrs. Marryat for building and equipping two operating theatres and a central electrical department at the Dundee Royal Infirmary.

GLASGOW.—The Corporation Sub-Committee on Slum Areas recommends that 20 acres of land in the Springburn district be acquired at the price of £400 per acre for a housing site.—The Dean of Guild Court has passed plans for new buildings estimated to cost £400,000. The approved schemes include 228 houses at Hawthorn-street, Springburn, at an approximate cost of £100,000, and 64 houses at Cathcart-road, at a cost of over £26,000, for the Corporation; additions to the Arts Section of the University of Glasgow and University War Memorial Chapel to complete the west wing of the quadrangle at Gilmorehill, at an estimated cost of £122,000; also plans by Mrs. C. Anderson for a double bungalow, Wester-road, Sandyhills, Shettleston; the Corporation Electricity Dept., for transformer house, at Polmadie-road; Falk, Stadlemann & Co., Ltd., 74, Great Clyde-street, for the reconstruction of premises; Hillhead High School War Memorial Trust, for a pavilion at Hughenden-road, Great Western-road; the Trustees for the Glasgow Association of Spiritualists, Holland-street, for hall and alterations at 26, Holland-street; Langs, Ltd., for alterations to shop for restaurant at West Nile-street and St. George's-place; the Corporation Parks Dept., for alterations to shelters at Queen's Park Recreation Ground and at Alexandra Park; the Glasgow County Scout Council of the Boy Scouts, for alterations at 21, Elmbank-street; Botanic Gardens Picture House, Ltd., a picture house, Observatory-road, Byres-road. Plans were submitted by Mr. John Caldwell, Kilmarnock-road, Newlands, for 12 terrace houses at Lochlea-road, Newlands, but these have been deferred for further consideration.

GLEN.—Plans have been passed for a hall, billiard room and ladies' room at Glen village, near Falkirk, for the Callendar Miners' Welfare Society.

A NEW ELECTRIC LIGHT FITTING.

A NEW electric light bowl is now on the market which has the advantage of the colours being absolutely permanent, the colouring being done by hand and encased between two sheathings of glass. Many effects and colourings can be obtained to harmonise with decorative schemes, and no deep patchy colour reflections are cast below the fitting. In cases where a decorative pattern is preferred to the plain tints, the bowls can be had with floral decoration, an illustration of which is here shown. The principle is not confined to bowls; shades or glasses of many patterns for downward lighting, as well as some beautifully designed vases for ordinary

home decoration, are also made. Messrs. Jackson & Boyce, electrical engineers, 19, Berners-street, London, W.1, have a number of these bowls displayed in their new showrooms, where also may be seen electric fittings in great variety to suit any style or period. This firm have also recently carried out a number of electric light plant installations in country houses, among which are "The Clockhouse" (Dunmow, Essex), "Daneswood House" (Much Hadham, Herts), the Church Army "Sunshine Home" (Hurstpierpoint, Sussex), "The Hangings" (Ferry Hinksey, near Oxford).

WAGES AND CONDITIONS IN THE BUILDING TRADE.

WE have received the following letter from Mr. H. Dearden :—

SIR,—It has given me great pleasure to read the correspondence in *The Builder* on the position in the building trade; and I am glad your interesting journal has shown such a broad-minded view in allowing all sides to ventilate the position. Some writers have shown a magnanimity worthy of such men and their cause. If the opinion expressed by Mr. W. H. Nicholls, at Manchester, animated all men, what a different world this would be; capitalists then would not only seek comforts and luxury, and to leave behind them big estates, but to fill the place of true service—namely, to serve their day and generation. But there seems to be some who want to compare us with the lowest paid men in the country. I would like to make a few comparisons. The engineers are underpaid and the reason is obvious: their work is cut up into sections, dilutees and girls have flooded it, and the work is easily learned. The miners' work is such that a suitable man can learn it in a short time and a boy can earn as much as a man. A policeman would not stay long if he did not qualify in six months. A 'bus driver would be quite useless if he could not learn to drive in three months. A joiner, if he begins at fifteen, is rarely fully skilled before he is thirty. Some workers have no tools to find, yet I do not believe I could replace all my tools for less than £100. But this is not £100 invested; besides ordinary wear and tear, there are breakages and losses; yet a 'bus driver or conductor, a potman, a policeman, or a printer's labourer has far better remuneration than a joiner. Why not take a fair comparison, and not always the lowest? We have often been charged with decreasing our output, but why not place the charge where it ought to be, namely, the war. Men were compelled to go to the war, and when they came back, to grumble because they acted the "old soldier" seems to me a very poor policy.

I would like to offer a suggestion. If the employers lock out the men in March and then want them to return in September, the men then will want not a 20 per cent. reduction, but a 20 per cent. increase and tool money as well. Neither a lock out nor a reduction in wages will be an inducement to greater output.

The "Gazeway."

Messrs. W. H. Gaze & Sons, Ltd., builders and decorators, &c., entertained a number of guests to lunch at Kingston-on-Thames, on Thursday last week. Subsequently an opportunity was afforded of inspecting "The Gazeway," at Surbiton, formerly an early Victorian residence which Messrs. Gaze have completely modernised with the object of providing a kind of super-showroom in which are demonstrated up-to-date schemes of interior decoration, furnishing, labour-saving and comfort-providing devices. "The Gazeway" revels in colour. The rooms are warm and inviting, each one having a distinct atmosphere and character. Poor proportions have been disguised by subtle treatment of frieze, filling, dado, panel and border, and door, window, ceiling and alcove have had their decorative possibilities fully developed. The furniture is on the whole of a modern character, but genuine pieces of all periods are to be seen. The heating problem is solved by the installation of the "One-pipe" heater, which is simple and economical. The nine acres of model grounds show every phase of garden architecture, from a rock and water garden, on an extensive and natural scale, to the miniature crazy-paved town garden. There is an Italian fountain garden, well-stocked nurseries, and a fine collection of sun-dials, statuary, and well-heads. The "all-weather" hard tennis court can also be tested at "The Gazeway." Appointments to view this attractive residence can be made on application to the firm at 19-23, High-street, Kingston-on-Thames.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur :—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Masons' Labourers.	Plasterers' Labourers.
Aberdare	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Accrington	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Altrincham	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Ashton-under-Lyne	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Barnsley	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Barrow-in-Furness	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Barry	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Bath	1/5	1/5	1/5	1/5	1/5	1/5	1/5		1/3
Bedford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Birkenhead	1/9	1/9	1/9	1/9	1/9	1/10	1/9		1/4½
Birmingham	1/8	1/8	1/8	1/8	1/8	1/9	1/8		1/3
Bishop Auckland	1/8	1/8	1/8	1/8	1/8	1/9	1/8		1/3
Blackburn	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Blackpool	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Bolton	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/8		1/3
Bradford	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Bridgwater	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½		0/11½
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Bristol	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Burnley	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Burton-on-Trent	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½		1/2
Bury	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Cambridge	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Cardiff	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Chatham	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Chelmsford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Cheltenham	1/5	1/5	1/5	1/5	1/5	1/5	1/5		1/0½
Chester	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Chesterfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Colchester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/3
Coventry	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/0½
Crewe	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½		1/3
Darlington	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/2
Derby	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Doncaster	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Dudley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½		1/2
Durham	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
E. Glam.(Mon. Vall.)	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Exeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½		1/0½
Folkestone	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Gloucester	1/5	1/5	1/5	1/5	1/5	1/5	1/4		1/0½
Grantham	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½		1/2
Grays	1/8	1/8	1/8	1/8	1/8	1/8½	1/7		1/3
Grimsby	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Great Yarmouth	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Halifax	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Harrogate	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Hartlepools	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Hastings	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Hereford	1/5	1/5	1/5	1/5	1/5	1/5	1/4		1/0½
Huddersfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Hull	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Ipswich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Lancaster	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Leamington Spa	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½		1/2
Leeds	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Leicester	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Lichfield	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½		1/2
Lincoln	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Liverpool	1/9	1/9	1/9	1/9	1/9	1/10	1/9		1/4
Llanelly	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
London	1/8	1/8	1/8	1/8	1/8	1/8½	1/7		1/3
Loughborough	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Luton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Maidstone	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Manchester	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Mansfield	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Merthyr Tydfil	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Middlesbrough	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Newcastle-on-Tyne	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Newport, Mon.	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Northampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½		1/2
Norwich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Nottingham	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5		1/0½
Oldham	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Oxford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/5		1/1½
Pontypridd	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Preston	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Reading	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Rochdale	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4		1/0
Rugby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½		1/2
St. Albans	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
St. Helen's	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Scarborough	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½		1/2
Sheffield	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Shrewsbury	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½		1/2
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Southport	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
South Shields	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Stockport	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Stockton-on-Tees	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Stoke-on-Trent	1/8	1/8	1/8	1/8	1/8	1/9	1/8		1/3
Stroud	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4		1/0½
Sunderland	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Swansea	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Swindon	1/5	1/5	1/5	1/5	1/5	1/5	1/4		1/0½
Taunton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Wakefield	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Walsall	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½		1/2
Warrington	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
West Bromwich	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Wigan	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Windsor	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½		1/0½
Wolverhampton	1/8	1/8	1/8	1/8	1/8	1/8	1/8		1/3
Worcester	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½		1/2
York	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½		1/2

(For rates of wages in the Building Trade in Scotland, see page 296.)

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

FEBRUARY 19.—**Blean.**—BATHROOM, &C.—Construction of a bathroom, &c., and decoration of two of the blocks at the Isolation Hospital, West End, Herne, for the R.D.C. Mr. F. A. Ward, Surveyor, Blean Institution, Herne Common, Herne.

FEBRUARY 19.—**Cardiff.**—ALTERATIONS.—Alterations in the conversion of the Court Farm-buildings, Llandaff Fields, into tea rooms and dressing rooms, &c., for the T.C. City Architect, City Hall, Cardiff. Deposit £2 2s.

FEBRUARY 19.—**Edinburgh.**—EXTENSION.—(1) Extension of switch house, M'Donald-road Power Station, and (2) wire net fencing of tennis courts, Victoria-park, Leith, for the T.C. Mr. James A. Williamson, City Architect, City Chambers, Edinburgh.

FEBRUARY 19.—**Edinburgh.**—TENEMENT.—Reconstruction of tenement, No. 7, West Port, for the T.C. Director of Housing, City Chambers, Edinburgh.

FEBRUARY 19.—**Edinburgh.**—PAINTING.—Execution of the painter work of the Recreation Hall at the Bangour Mental Hospital Institution, for the T.C. Mr. James D. Gibson, surveyor, 60, Frederick-street, Edinburgh.

FEBRUARY 19.—**Lancing.**—MORTUARY.—Erection of a mortuary at the rear of the parish hall at Lancing, Sussex, for the Parish Council. Mr. H. M. Potter, architect, 41A, Warwick-street, Worthing.

FEBRUARY 19.—**Milnrow.**—TRANSFORMING STATION, &C.—Erection of transforming station and sanitary conveniences, for the U.D.C. Surveyor, Public Offices, Milnrow.

FEBRUARY 19.—**Oxford.**—REPAIRS.—For repairs to Blackbird Leys Farm, for the T.C. City Engineer, Town Hall, Oxford.

FEBRUARY 19.—**Plymouth.**—REPAIRS.—Repairs to certain premises at Gasking-street, for the T.C. Medical Officer of Health's (Housing) Department, Town Hall, East Stonehouse, Plymouth.

FEBRUARY 19.—**Port Talbot.**—ROAD WORKS.—For excavating, refilling and resurfacing with Tarmac, Victoria-road and the Esplanade, Aberavon, for the Port Talbot U.D.C. Borough Surveyor, Municipal Buildings, Port Talbot. Deposit £1 1s.

FEBRUARY 19.—**Southend.**—CONVENIENCES.—Erection of men's and women's conveniences on the Pier Outer Head, for the T.C. Mr. Robert H. Dyer, Borough Engineer, Municipal Buildings, Clarence-road, Southend-on-Sea. Deposit £2.

FEBRUARY 20.—**Bootle.**—KIOSK, &C.—For erection of refreshment kiosk in Derby Park and two tool sheds, for the T.C. Borough Engineer, Bootle.

FEBRUARY 20.—**Cross Keys (Mon).**—CONVERSION AND RECONSTRUCTION.—For the conversion and reconstruction of the Artillery Drill Hall, Cross Keys, occupied by the 330th Battery, 82nd (Welsh) Brigade R.F.A., for the Monmouthshire Territorial Army Association. Bond for £500 required from accepted tenderer, expenses of which will be borne by the Association. Messrs. Habershon and Fawckner, F.R.I.B.A., 41, High Street, Newport, Mon. Deposit £2 2s.

FEBRUARY 20.—**Glasgow.**—SHOPS.—Works in connection with the erection of four double shops and four single shops at Kennyhill and Riddrie, for the T.C. Town Clerk (Room 36), City Chambers.

FEBRUARY 20.—**Liverpool.**—PAINTING, &C.—For the execution of various painting works for the Commissioners of H.M. Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s.

FEBRUARY 20.—**Manchester.**—ALTERATIONS.—For alterations for open access at the Cheetham Branch Library, and alterations and new furniture at Openshaw Branch Library, for the T.C. City Architect, Town Hall, Manchester. Deposit £1 1s. each.

FEBRUARY 21.—**Bolton.**—COTTAGES.—Erection of two cottages at Belmont, near Bolton, for the T.C. Waterworks Engineer's Office, St. George's-street, Bolton.

FEBRUARY 21.—**Brighouse.**—HOUSES.—Erection of 12 type "B" houses at Smith House-lane, for the T.C. Mr. F. T. Grove, Town Clerk, Municipal Offices, Brighouse.

FEBRUARY 21.—**Ferrybridge.**—WALLING, &C.—Erection of entrance and boundary walling, also iron railings and gates at the New Cemetery, Ferrystone. Mr. W. J. Tennant, architect, Pontefract.

FEBRUARY 21.—**Ogmore, Nantymoel and Blaengarw (Glam).**—RECONSTRUCTION OF BRIDGES AND WIDENING OF ROAD, &C.—For work as follows, for the Ogmore and Garw U.D.C.: (*a*) Taking down of abutments and wing walls and re-erecting same, and (*b*) reconstruction of two plate girder bridges with steel parapets and through decking of 30 and 36 feet respectively; being the Ocean Incline Bridges at Nantymoel and Blaengarw, with road widening work. Mr. W. T. Ollivant Jones, Engineer and Surveyor, Council Offices, Brynmenin. Deposit £2 2s.

FEBRUARY 21.—**Rowley Regis.**—CONVENIENCES, &C.—Erecting new sanitary conveniences and for altering, draining, and other works, and reinstating greenhouse, for the U.D.C. Mr. Daniel Wright, Clerk, Rowley Regis.

FEBRUARY 22.—**Achill Sound.**—EXTENSION.—For extension of Dooega National School, Achill Sound, co. Mayo. Mr. J. J. Healy, Secretary, Office of Public Works, Dublin.

FEBRUARY 22.—**Barham.**—ADDITIONS.—Erection of bedroom, bathroom, &c., at the Hospital, Barham, for the R.D.C. of Bosmere and Claydon. Mr. H. Smith, Building Inspector, Needham Market.

FEBRUARY 22.—**Breconshire.**—ROAD DIVERSIONS.—For the following unemployment works for the Breconshire County Council: (*a*) Cwmhafrena-road diversion; (*b*) Borthddu: road diversion on the Builth-Llanwyrtyd-Llandovery road. Mr. W. L. Harpur, County Surveyor, County Offices, Brecon.

FEBRUARY 22.—**Chelmsford.**—PAINTING.—Repairs and painting at their waterworks pumping station, Fryerning-lane, Ingatestone, for the R.D.C. Mr. James Dewhirst, engineer, Waterloo-lane, Chelmsford.

*FEBRUARY 22.—**Hythe.**—BATHS, &C.—For the conversion of the baths, construction of new shelters, &c., for the Borough of Hythe. Messrs. Bromley & Dahl, F.R.I.B.A., Radnor Chambers, Folkestone. Deposit £2 2s.

*FEBRUARY 23.—**Croydon.**—BUILDING.—Tenders for the building work required to complete a fitters' shop at the Waterworks Yard, Surrey-street, for the County Borough Council. Borough Engineer's Office, Town Hall, Croydon. Deposit £1.

FEBRUARY 23.—**Halifax.**—BUNGALOW.—Erection of bungalow and garage at Heath-road. Mr. M. Hall, architect, 1, Harrison-road, Halifax.

FEBRUARY 23.—**Kirkcudbright.**—HOUSES.—Erection of four blocks of two houses each, for the T.C. Mr. John Gibson, Town Clerk, Kirkcudbright. Deposit £1 1s.

FEBRUARY 23.—**Long Eaton.**—HOUSES.—Erection of 24 parlour and non-parlour houses, for the U.D.C. Mr. H. Raven, architect, The Hall, Long Eaton. Deposit £5 5s.

FEBRUARY 23.—**Luton.**—DEMOLITION.—For the demolition of certain premises in Bute-street and Silver-street. Mr. Chas. W. Latter, quantity surveyor, 43, Doughty-street, London, W.C.1. Deposit £2.

FEBRUARY 23.—**Millburn.**—HOUSES.—For works in connection with the erection of four blocks of two houses each at Millburn-street, for the Kirkcudbright T.C. Mr. John Gibson, Town Clerk, Kirkcudbright. Deposit £1 1s.

FEBRUARY 23.—**Princetown.**—RENOVATIONS.—Renovating the Princetown Wesleyan Church. Mr. Rd. Pascoe, Secretary, Princetown.

FEBRUARY 23.—**Walsoken.**—ALTERATIONS.—For alterations and additions to Popenhoe Farm House, Walsoken, Norfolk, for the Norfolk C.C. Mr. Victor Playle, County Land Agent, Shirehouse, Norwich. Deposit £1 1s.

FEBRUARY 24.—**Ferryside.**—CONVERSION OF BUILDING.—For converting the existing Y.M.C.A. buildings at Ferryside into a residence for Mr. Vincent Davies. Mr. S. E. Bowser, architect, Bedford House, Derwent-street, Llanelly.

FEBRUARY 24.—**Glasgow.**—EXTENSION.—Extension of Elder Library, Govan, for the T.C. Office of Public Works, 64, Cochrane-street, Glasgow. Deposit £2 2s.

FEBRUARY 24.—**Prestonpans.**—HOUSES.—Erection of six houses (three and four apartment cottages) at East Loan, for the T.C. Messrs. R. & A. K. Smith, surveyors, 44, Queen-street, Edinburgh.

FEBRUARY 26.—**Canterbury.**—EXTENSION.—Extension to infirmary of Canterbury Guardians' Institution. Mr. H. C. Ashenden, 29, Westgate, Canterbury. Deposit £2 2s.

FEBRUARY 26.—**Crediton.**—HOUSE.—Erection of a teacher's house at Crediton Shirley Corner Council School, for the Devon E.C. Architect's Office, 1, Blackhall-road, Exeter.

FEBRUARY 26.—**London.**—REPAIRS.—General works and repairs (including jobbing work), exclusive of works of a mechanical character, to sewers, engine houses, buildings, bridges, subways, tunnels, &c., for the L.C.C. Chief Engineer, Old County Hall, Spring-gardens, S.W.1. Deposit £3.

FEBRUARY 26.—**London.**—WORKS AND REPAIRS.—Execution of ordinary works and repairs to the buildings in the charge of the Commissioners, His Majesty's Office of Works in the London district during the period of three years from April 1, 1923. Contracts Branch, H.M.O.W., King Charles-street, S.W.1. Deposit £2 2s.

FEBRUARY 26.—**Southery.**—ADDITIONS.—For additions and adaptations to farmhouse at Lister's Farm, Larman's Fen, Southery, for the C.C. Mr. Victor Playle, County Land Agent, Shirehouse, Norwich. Deposit £1 1s.

FEBRUARY 26.—**Tilbury.**—PUBLIC OFFICES.—Erection of Public Offices, for the U.D.C. Mr. A. W. Buckner, Clerk to the Council, Council Offices, Tilbury. Deposit £2 2s.

FEBRUARY 27.—**Newcastle-upon-Tyne.**—FLATS.—For the erection of 384 flats at Rochester-street, Walker, in three sections—(a) 204 dwellings, (b) 180 dwellings, (c) boundary walls, pavings, and other outside work—for the Corporation. Housing Architect, 18, Cloth Market, Newcastle.

FEBRUARY 28.—**Walthamstow.**—SHOPS, &C.—Erection of 12 lock-up shops with flats over, in Forest-road, for the U.D.C. Mr. G. W. Holmes, A.M.I.C.E., Town Hall Annexe, Walthamstow.

MARCH 1.—**Shap.**—HALL.—For alterations and additions to the Market Hall to convert it to a memorial hall. Mr. M. Lowis, hon. sec., Shap, Westmorland.

MARCH 2.—**Bath, &c.**—REPAIRS.—For the execution of ordinary works and repairs at buildings in Bath, Chester, Derby, Exeter, Gloucester, and Netley, for the Commissioners of H.M. Works, &c. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit 10s. 6d. each.

MARCH 2.—**Derby.**—REPAIRS, &C.—Execution of ordinary works and repairs at the buildings in the charge of H.M. Office of Works in the Derby district. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit 10s. 6d.

MARCH 2.—**Exeter.**—REPAIRS.—Execution of ordinary works and repairs at the buildings in the charge of H.M. Office of Works in the Exeter district. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit 10s. 6d.

MARCH 2.—**Gloucester.**—BUILDING WORKS, &C.—Execution of ordinary works and repairs at the buildings in the charge of H.M. Office of Works in the Gloucester district. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit 10s. 6d.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick-layers.	Car-penters, Joiners.	Plas-terers.	Slaters.	Plum-bers.	Painters.	Brick-layers' Masons' terers'	Plas-terers' Labourers.
Aberdeen	1/7	1/7	1/7	1/7	1/8	1/8½	1/4	1/- to 1/3	
Airdrie	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/3	
Alexandria	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/2	
Arbroath	1/7	1/7	1/7	1/7	1/7	1/7	1/6½	1/1	
Ayr	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/3	
Bathgate	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/2	
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/2	
Coatbridge	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/3	
Dumbarton	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/3	
Dumfries	1/6	1/6	1/6	1/6	1/8	1/8	1/6½	1/2 1/2½ 1/3½	
Dundee	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/3	
Dunfermline	1/8	1/8	1/8	1/8	1/6	1/8	1/6½	1/2	
Edinburgh	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/3	
Falkirk	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/3	
Fort William	1/6	1/6	1/6	1/6	1/6	1/6	1/6½	1/1½	
Galashiels	1/6	1/6	1/6	1/6	1/6	1/6	1/5½	1/1½	
Glasgow	1/8	1/8	1/8	1/8	10d	1/8	1/6½	1/3	
Greenock	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/1 to 1/3	
Hamilton	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/3	
Hawick	1/6	1/6	1/6	1/6	1/8	1/6	1/6½	1/1½	
Helensburgh	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/3	
Inverness	1/6½	—	1/6	1/7	1/6½	1/7	1/6½	10d. to 1/2	
Kilmarnock	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/3	
Kirkcaldy	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/2	
Kirkwall	1/5	1/5	1/4	1/7	1/5	1/5	1/6½	1/2	
Lanark	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/3	
Leith	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/2	
Motherwell	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/3	
Perth	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/2	
Stirling	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/3	
Stirlingshire (Eastern District)	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/3	
Wishaw	1/8	1/8	1/8	1/8	1/8	1/8	1/6½	1/3	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 295.

MARCH 2.—**Netley.**—REPAIRS.—Execution of ordinary works and repairs at the buildings in the charge of H.M. Commissioners of Works in the Netley district. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. 1. Deposit 10s. 6d.

MARCH 3.—**Bucks.**—COTTAGES.—Erection of (*a*) at Salden Crabtree Farm, Mursley (one dairy cottage), (*b*) at Pt. Littlecote Farm, Stewkley (one dairy cottage), for the Bucks C.C. Mr. G. M. Odam, County Land Agent, 21, Walton-street, Aylesbury.

★MARCH 5.—**Surrey.**—COTTAGES.—Erection of 12 cottages at Brookwood Mental Hospital and 12 cottages at Netherne Mental Hospital, for the Lunatic Asylums Visiting Committee of the County of Surrey. Mr. F. J. Hodgson, M.S.A., 161, High-street, Guildford, before Thursday, February 22, 1923.

MARCH 7.—**Hackney.**—LAUNDRY.—Demolition of and erection of new laundry, coal bunker, yard paving, &c., at the Central Institution, Sidney-road, Homerton, E.9, for the Board of Guardians. Mr. Frank R. Coles, Clerk, Guardians' Offices, Sidney-road, Homerton, E.9.

★MARCH 7.—**Homerton.**—LAUNDRY.—For the demolition of old and erection of new laundry, coal bunker, yard paving, drainage and other works at the Central Institution, Sidney-road, for Hackney Union. Mr. Frank R. Coles, Clerk to the Guardians, Guardians' Offices, Sidney-road, Homerton, E. 9. Deposit £5.

★MARCH 7.—**Welwyn, Herts.**—COTTAGES.—Erection of 93 cottages in the parish of Welwyn Garden City in the county of Hertford, for the R.D.C. Mr. Louis de Soissons, architect, Estate Office, Welwyn Garden City. Deposit £2 2s.

★MARCH 12.—**Southend-on-Sea.**—FLATS.—Erection and completion of a block of 16 flats at East-street, Leigh-on-Sea, for the County Borough. Mr. Robert H. Dyer, Borough Engineer, Municipal buildings, Southend-on-Sea. Deposit £3 3s.

NO DATE.—**Bridgend.**—ADDITIONS.—Additions to club house for Southerndown Golf Club. Messrs. Cook & Edwards, architects, 22, Dunraven-place, Bridgend. Deposit £2 2s.

NO DATE.—**Chorley.**—ALTERATIONS.—For extension, excavations, concreting, and building alterations. The Dacca Twist Co., Floor Oil Cloth Works, Water-street, Chorley.

NO DATE.—**Crumlin (Mon).**—ERECTION OF SHOPS, BANK, GARAGE, &C.—For erection and completion of Scheme No. 1, for the Trustees of the Crumlin Navigation Workmen's Institute Funds. Work includes erection of four lock-up shops, bank, garage, and institute containing lending library, reading rooms, committee rooms, billiard room, and caretaker's quarters. Mr. H. Gabe Jones, architect and surveyor, Bank Chambers, Hengoed. Deposit £2 2s.

NO DATE.—**Hayes.**—ROOFING.—For re-roofing of warehouses, &c. United Kingdom Glass Co., Ltd., Dawley, Hayes, Middlesex.

NO DATE.—**Southerndown (Glam).**—BUILDING ADDITIONS.—For making additions to the club-house of the Southerndown (Glam) Golf Club. Messrs. Cook & Edwards, M.M.S.A., 22, Dunraven-place, Bridgend

FURNITURE, MATERIALS, etc.

FEBRUARY 19.—**Dublin.**—TIMBER.—Supply and delivery on site of timber for joinery and rough timber for 46 houses on the Fairbrothers Fields Housing area, for the T.C. City Treasurer, Exchange Buildings, Lord Edward-street, Dublin. Deposit £1.

FEBRUARY 19.—**Finsbury.**—MATERIALS.—Supply to B.C. of various materials. Borough Surveyor, Town Hall, Rosebery-avenue, E.C. 1.

FEBRUARY 19.—**Halifax.**—SLAG.—Supply to the T.C. of 1,500 to 2,000 tons of tarred slag. Borough Engineer, Crossley-street, Halifax.

FEBRUARY 19.—**Haywards Heath.**—TAR.—Supply of about 11,000 gallons of refined coal tar to the U.D.C. Mr. G. Plummer, Surveyor, Offices, Haywards Heath.

FEBRUARY 19.—**Headington.**—GRANITE.—Supply of granite to the R.D.C. Mr. A. Walker, surveyor, Windmill-road, Headington.

FEBRUARY 19.—**Islington.**—MATERIALS.—Supply of granite and other hard stone, timber, &c., to the B.C. Mr. C. G. E. Fletcher, Town Clerk, Town Hall, Upper-street, N.1.

FEBRUARY 19.—**Leeds.**—MATERIALS.—Supply of stores for the Tramways' and Highways' Department. Mr. J. B. Hamilton, Commercial Manager, 1, Swinegate, Leeds.

FEBRUARY 19.—**Maesteg.**—MECHANICAL TRANSPORT.—For supply and delivery of (1) one 3-ton road (end and side) tipping wagon, steam or petrol driven; (2) alternatively, one 4-ton ditto; (3) alternatively, 5-ton ditto; (4) 4-ton trailer for attachment to above, with hand-operating tipping apparatus. Illustrations, particulars, &c., to Engineer and Surveyor, Council Offices, Maesteg.

FEBRUARY 19.—**Rawtenstall.**—MATERIALS.—Supply of road and other materials, to the T.C. Borough Surveyor, Town Hall, Rawtenstall.

FEBRUARY 19.—**Richmond (Surrey).**—MATERIALS.—Supply to the T.C. of road and other materials. Mr. J. H. Brierly, Borough Surveyor, Town Hall, Richmond, Surrey.

FEBRUARY 19.—**Southport.**—MATERIALS.—Supply of road and other materials to the T.C. Mr. A. E. Jackson, Borough Engineer, Town Hall, Southport.

FEBRUARY 19.—**Waltham.**—MATERIALS.—Supply to the U.D.C. of granite, flints, gravel, hoggin, ballast and sand, tar-macadam, tar-spraying. Mr. W. C. Holloway, Surveyor, Town Hall, Waltham Abbey.

FEBRUARY 19.—**Warrington.**—ROAD MATERIAL.—For 3,000 tons of 3½ in. by 5 in. or 4 in. by 5 in. granite or Whinstone setts, for the T.C. Mr. Andrew M. Ker, Borough Engineer, Warrington.

FEBRUARY 20.—**Buckingham.**—MATERIALS.—Supply of road materials to the R.D.C. Mr. F. C. Reynolds, surveyor, Buckingham.

FEBRUARY 20.—**Kingston-on-Thames.**—TAR.—Supply of tar and bitumen for roads to the Surrey C.C. Mr. W. P. Robinson, County Surveyor, Kingston-on-Thames.

FEBRUARY 21.—**Barnet.**—MATERIALS.—Supply of road materials to the U.D.C. Mr. F. P. Kindell, Surveyor, Council Offices, New Southgate, N.

FEBRUARY 21.—**Boston.**—ROAD MATERIALS.—Supply to the Holland (Lincolnshire) County Council of granite, tar, &c. Mr. H. C. Marris, Clerk, Sessions House, Boston.

FEBRUARY 21.—**Chailey.**—MATERIALS.—Supply of road materials to the R.D.C. Mr. R. P. Cheale, surveyor, West-street, Lewes.

FEBRUARY 21.—**Edinburgh.**—WIRE FENCING.—Supply of wire fencing to the Water Department. Mr. A. Grierson, Town Clerk, City Chambers, Edinburgh.

FEBRUARY 21.—**Finchley.**—TAR.—Supply of tar to the U.D.C. Mr. P. T. Harrison, Surveyor, Council Offices, Church End, Finchley, N.

FEBRUARY 21.—**Glasgow.**—FURNITURE.—For steel furniture and fittings at Municipal Buildings. Messrs. Watson, Salmond & Gray, architects, 242, West George-street, Glasgow.

FEBRUARY 21.—**Hambledon.**—MATERIALS.—Supply of materials, to the R.D.C. Mr. S. B. Hasell, surveyor, Bramley, Guildford.

FEBRUARY 21.—**New Forest.**—ROAD MATERIALS.—Supply to the R.D.C. of granite, limestone, tar and bitumen. Mr. F. Heather, surveyor, Lyndhurst, Hants.

FEBRUARY 21.—**Twickenham.**—MATERIALS.—Supply to the U.D.C. of materials for various departments. Mr. F. W. Pearce, Surveyor, Town Hall, Twickenham.

FEBRUARY 21.—**Wortley.**—MATERIALS.—Supply of various materials to the R.D.C. Mr. F. Thurlby, Surveyor, Grenoside, near Sheffield.

FEBRUARY 22.—**Frome.**—MATERIALS.—Supply of materials to the U.D.C. Mr. L. Slaughter, Surveyor, Public Offices, Frome.

FEBRUARY 22.—**Godstone.**—MATERIALS.—Supply to the R.D.C. of road and other materials. Mr. Geo. E. Crowter, Surveyor, Council Offices, Oxted, Surrey.

FEBRUARY 23.—**Gainsborough.**—MATERIALS.—Supply of granite and slag to the R.D.C. Mr. G. H. Wright, surveyor, 60, Melrose-road, Gainsborough.

FEBRUARY 23.—**Wetherby.**—MATERIALS.—Supply of road materials to the R.D.C. Mr. A. Suttel, Council Offices, Wetherby.

FEBRUARY 24.—**Brandon.**—MATERIALS.—Supply to the U.D.C. of road stone, stores, &c. Mr. J. P. Addison, surveyor, Langley Moor.

FEBRUARY 24.—**Broadstairs.**—MATERIALS.—Supply of road materials to the U.D.C. Mr. H. Hurd, Surveyor, Pierremont Hall, Broadstairs.

FEBRUARY 24.—**Diss.**—ROAD MATERIALS.—Supply of granite and tarmacadam to the U.D.C. Mr. A. Cooper, surveyor, Diss.

FEBRUARY 24.—**Dorking.**—ROAD MATERIALS.—Supply to the U.D.C. of blast furnace slag and refined tar or proprietary compounds. Mr. S. S. Gettings, Surveyor, Council Offices, Dorking.

FEBRUARY 24.—**Flaxton.**—ROAD MATERIALS.—Supply to the R.D.C. of broken whinstone and broken slag. Surveyor, 5, Mille Crux-terrace, Huntington, York.

FEBRUARY 24.—**Harrogate.**—MATERIALS.—Supply of materials to the T.C. Mr. C. E. Rivers, Borough Engineer, Harrogate.

FEBRUARY 24.—**Hemel Hempsted.**—MATERIALS.—Supply of road and other materials to the T.C. Mr. Alfred E. Usher, Town Clerk, Town Hall, Hemel Hempsted.

FEBRUARY 24.—**Huntingdon.**—MATERIALS.—Supply of granite, slag and tarmacadam to the C.C. Mr. H. Leete, County Surveyor, Huntingdon.

FEBRUARY 26.—**Ilford.**—MATERIALS.—Supply of road and other materials to the U.D.C. Mr. H. Shaw, Surveyor, Town Hall, Ilford.

FEBRUARY 26.—**Colne.**—MATERIALS.—Supply of road and other materials to the T.C. Mr. T. H. Hartley, Borough Engineer, Colne.

FEBRUARY 26.—**Silsden.**—MATERIALS.—Supply of fireclay and silica goods to the U.D.C. Mr. M. Driver, Gas Works, Silsden.

FEBRUARY 26.—**Woodford.**—MATERIALS.—Supply of road materials, to the U.D.C. Mr. William Farrington, Surveyor, Council Offices, Woodford Green, Essex.

FEBRUARY 27.—**Lewisham.**—MATERIALS.—Supply of materials to the B.C. for various services. Town Hall (Surveyor's Department), Catford, S.E.

FEBRUARY 27.—**Manchester.**—MATERIALS.—Supply of stores to Tramways Department. Mr. H. Mattinson, general manager, 55, Piccadilly, Manchester.

FEBRUARY 28.—**Cupar-Fife.**—MATERIALS.—Supply to the Fifeshire C.C. of road tools, &c. Mr. W. Boyd, Surveyor, 12, Crossgate, Cupar-Fife.

FEBRUARY 28.—**Fulham.**—MATERIALS.—Supply of various materials to the B.C. Mr. J. Percy Shuter, Town Clerk, Town Hall, Fulham, S.W. 6.

FEBRUARY 28.—**Northallerton.**—MATERIALS.—Supply to the North Riding of Yorkshire County Council of road materials. County Surveyor, County Hall, Northallerton.

FEBRUARY 28.—**Southwark.**—MATERIALS.—Supply of materials to the B.C. Mr. P. H. Gray, Town Clerk, Southwark Town Hall, S.E.

MARCH 1.—**Hertford.**—MATERIALS.—Supply of highway materials, to the T.C. Borough Surveyor, The Castle, Hertford.

MARCH 1.—**London.**—ROAD MATERIALS.—Supply of road materials (granite, gravel, sand and ragstone) to the Royal Parks, London. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. 1.

MARCH 1.—**London.**—WOOD.—Supply of kindling wood and log wood for one year, at London, Caterham, and Windsor. Officer Commanding, Royal Army Service Corps, Headquarter Office, Kensington Barracks, Church-street, W.8.

MARCH 1.—**Middlesbrough.**—MATERIALS.—Supply of various road and other materials to the T.C. Mr. S. E. Burgess, Borough Engineer, Middlesbrough.

MARCH 1.—**Tadcaster.**—MATERIALS.—Supply of road material, stores, &c., to the R.D.C. Mr. Geo. A. Bromet, clerk, Kirkgate, Tadcaster.

MARCH 3.—**Cardiff and District.**—SUPPLY OF MOUNTAIN LIMESTONE, TARRED NUT STONE, GRAVEL, &C.—For (*a*) supply and delivery to thirty parishes for the Cardiff R.D.C., and within the Council's area, of mountain limestone, and supply of team labour; (*b*) for supply of tarred nut stone and gravel and limestone, tar-spraying gravel in fifteen parishes, and for unloading and hauling stone or gravel from the rail stations; and (*c*) for supply of tools, castings, general ironmongery and earthenware pipes, &c., to the Cardiff R.D.C. All materials to be supplied for one year ending March 31, 1924. Mr. William Farrow, 20, Park-place, Cardiff.

MARCH 3.—**Rochford.**—TAR.—Supply of 50,000 gallons of tar, to the R.D.C. Mr. H. T. Sidwell, F.R.I.B.A., surveyor, 40, Clarence-street, Southend-on-Sea.

MARCH 3.—**Rochford.**—ROAD MATERIALS.—Supply of granite and tarred material, to the R.D.C. Mr. H. T. Sidwell, F.R.I.B.A., surveyor, 40, Clarence-street, Southend-on-Sea.

MARCH 5.—**Tenterden.**—MATERIALS.—Supply of road materials to the T.C. Mr. W. L. C. Turner, Borough Surveyor, Town Hall, Tenterden, Kent.

MARCH 5.—**Westminster.**—MATERIALS.—Supply of road and other materials to the C.C. Mr. John Hunt, Town Clerk, City Hall, Charing Cross-road, W.C.2.

MARCH 10.—**Chile.**—MATERIALS.—Supply to the Chilean State Railways of wire netting, pipes, &c. Department of Overseas Trade, 35, Old Queen-street, S.W.

MARCH 12.—**Stoke-on-Trent.**—MATERIALS.—Supply of various materials to the T.C. Borough Surveyor, Town Hall, Stoke.

MARCH 15.—**Bagdad.**—STORES.—Supply of stores for Iraq Army Ordnance Dept. Dept. of Overseas Trade, 35, Old Queen-street, S.W.

NO DATE.—**Aberdare.**—SUPPLIES.—For supply for periods of three or six months as from April 1 next of following articles to the Directors of the Powell Duffryn Steam Coal Co., Ltd.: (1) Bar and other iron; (2) bolts, nuts, rivets, &c.; (3) gunmetal fittings; (4) India-rubber, asbestos; (5) colliers' tools; (6) ironmongery; (7) steel girders, channels and rails; (8) nails; (9) oil-skins; (10) cast steel, tramways, axles, &c.; (11) steam and Williams' tubes and fittings; (12) brattice cloth, waste, &c.; (14) chains; (16) timber; (17) printing; (20) wire ropes; (21) pitwood; (22) lime and cement; (23) electric cables and accessories. Stores Manager, Aberaman Offices, Aberdare.

ENGINEERING, IRON AND STEEL.

FEBRUARY 19.—**Bristol.**—HEATING INSTALLATION.—Heating apparatus, &c., New Administrative Offices Avonmouth Docks. Mr. Thomas A. Peace, Engineer, Avonmouth Docks.

FEBRUARY 19.—**Cork.**—VIADUCT.—Reconstruction of one span of the Douglas Viaduct, for the Cork, Blackrock and Passage Railway Co. Mr. R. H. Good, Albert-street Terminus, Cork.

FEBRUARY 19.—**Dublin.**—STEELWORK.—Supply to the Midland Great Western Railway of Ireland Company of steelwork for underbridge. Chief Engineer, Broadstone Terminus, Dublin. Deposit £1.

FEBRUARY 20.—**Tottenham.**—CAPSTAN.—Electrically driven capstan, &c., fixed on prepared foundations at the U.D.C.'s siding. Surveyor, Town Hall, Tottenham, N. 15.

FEBRUARY 21.—**Arlesey.**—PUMP.—Supply a lift and force tar pump with two flywheels, for the Three Counties Mental Hospital. Medical Superintendent, Three Counties Mental Hospital, Arlesey, Beds.

FEBRUARY 21.—**Dewsbury.**—PUMPS, &C.—Supply of pumps and motors for sewage disposal works, for the T.C. Messrs. J. Diggle & Son, 14, Brown-street, Manchester.

FEBRUARY 21.—**Ogmore.**—BRIDGE WORKS.—For (1) taking down and re-erecting abutments and wing walls, (2) two plate girder bridges, for the U.D.C. Mr. W. T. O. Jones, surveyor, Council Offices, Bryntmenyn.

FEBRUARY 21.—**Wandsworth.**—RECONSTRUCTION.—For reconstruction of engineering plant at St. John's Hospital, for the Wandsworth B.G. Mr. F. J. Curtis, clerk, Offices, St. John's-hill, S.W. Deposit £10.

FEBRUARY 22.—**Grantham.**—BRIDGES.—Rebuilding of Avenue-road and Wyndham-park bridges over the river Witham, for the T.C. Mr. Gilbert A. Ballard, Borough Surveyor, Guildhall, Grantham. Deposit £2.

FEBRUARY 22.—**Nottingham.**—STEELWORK.—For 1,350 tons of steelwork in stanchions, girders, beams, roof trusses, &c.; 30 tons of galvanised work in corrugated sheeting, chimney aprons, louvres, &c.; 30 tons of cast-iron in gutters, &c., required in connection with the construction of power station, for the T.C. Mr. T. Wallis Gordon, City Engineer, Guildhall, Nottingham. Deposit £2.

FEBRUARY 23.—**London.**—MATERIALS.—Supply to the High Commissioner for India of (1) Spikes, screw, steel, (2) springs, helical and volute. The Director-General, India Store Department, Belvedere-road, Lambeth, S.E. 1.

FEBRUARY 23.—**Portsmouth.**—PUMPS, &C.—Supply of four plunger pumps and overhaul of engines in connection with sewage department. Mr. G. Midgley Taylor, 36, Victoria-street, S.W. Deposit £5.

FEBRUARY 23.—**Swansea.**—BRIDGE.—Construction of highway bridge over Tennant Canal, for the T.C. Mr. J. R. Heath, Borough Engineer, Guildhall, Swansea. Deposit £2 2s.

FEBRUARY 24.—**Southampton.**—RAILS.—Supply of 200 tons of B.S.S. No. 4 or No. 7 tramrails in 45 ft. lengths, to the T.C. Mr. J. Dobson, Tramway Offices, 61, Above Bar-street, Southampton.

FEBRUARY 26.—**Ossett.**—WATERWORKS.—(2) Engines, deep well and delivery pumps; (3) softening and filtration plant; (5) reinforced concrete water tower, 200,000 galls. capacity, for the T.C. Mr. H. Holmes, Borough Engineer, Town Hall, Ossett.

FEBRUARY 26.—**Winchester.**—BRIDGE.—Construction of two small bridges in reinforced concrete at Stockbridge, for the Southampton C.C. Mr. W. J. Taylor, County Surveyor, The Castle, Winchester. Deposit £1 1s.

FEBRUARY 27.—**Ryde.**—STEAM ROLLER.—Supply of a ten-ton steam roller, to the T.C. Surveyor, Town Hall, Ryde, I.W.

FEBRUARY 28.—**Dewsbury.**—SEWAGE SCREENS.—Supply to the T.C. of sewage screens, with electrically-driven raking and cleaning apparatus, required at the Dewsbury Sewage Disposal Works. Messrs. James Diggle & Son, 14, Brown-street, Manchester. Deposit £5.

FEBRUARY 28.—**St. Helens.**—TRAMWAY.—Laying of about 7,496 lin. yds. of tramway permanent way, for the T.C. Mr. Arthur W. Bradley, Borough Engineer, Town Hall, St. Helens. Deposit £2 2s.

FEBRUARY 28.—**Sheffield.**—CONCRETE WORK.—For reinforced concrete lining of steel coal bunkers for boilers 20 and 23 at Neepsend Generating Station, for the T.C. Mr. S. E. Fedden, General Manager, Commercial-street, Sheffield. Deposit £1 1s.

MARCH 1.—**Calcutta.**—PUMPING MACHINERY.—Supply and erection of four electrically-driven pumps, for the T.C. Messrs. St. George Moore & La Trobe-Bateman, 91, Victoria-street, S.W. Deposit £5.

MARCH 1.—**Stoke-on-Trent.**—PIPES.—Supply of 3,130 tons of 24 in. cast water pipes to the Directors of the Staffordshire Potteries Waterworks Company. Mr. R. C. Frain, Engineer. 39, Albion-street, Hanley, Stoke-on-Trent.

MARCH 2.—**London.**—STEELWORK.—Supply to the South Indian Railway Company of structural steelwork for carriage repair shop and wheel shop, Trichinopoly workshops scheme. Company's Offices, 91, Petty France, Westminster, S.W.1. Charge £1.

MARCH 6.—**Portsmouth.**—CRANE.—For an electrically operated portable jib crane at the quay, for the T.C. Mr. Arthur W. Ward, Borough Engineer, Town Hall, Portsmouth. Deposit £2 2s.

MARCH 6.—**Portsmouth.**—QUAY WIDENING.—Widening of a portion of the Quay in the Outer Camber in reinforced concrete construction, 180 ft. long and varying in width from 8 ft. to 10 ft., for the T.C. Mr. Arthur W. Ward, Borough Engineer, Town Hall, Portsmouth. Deposit £5 5s.

MARCH 10.—**Denver.**—SLUICE REPAIRS.—Repairs to Denver Sluice, Denver, Norfolk, for the Ouse Navigation Board. Mr. G. E. Mathews, engineer, 36, Station-road, Cambridge. Deposit £2 2s.

MARCH 12.—**Leicester.**—PUMPING MACHINERY.—Additional pumping machinery at Abbey Pumping Station and Beaumont Leys Sewage Farm, for the T.C. Mr. E. George Mawbey, City Engineer, Town Hall, Leicester. Deposit £5.

MARCH 20.—**New Zealand.**—STEEL TOWERS.—Supply to the Public Works Dept. of transmission line steel towers, for the Mangahoo electric power scheme. Dept. of Overseas Trade, 35, Old Queen-street, S.W.

MAY 3.—**Chile.**—TOOLS, &c.—Supply to Chilean State Railways of machinery and tools, nuts and bolts, &c. Dept. of Overseas Trade, 35, Old Queen-street, S.W.

JUNE 26.—**Queensland.**—PUMPING PLANT.—Supply to the Metropolitan Water and Sewerage Board of Brisbane, Queensland, of pumping plant for Mount Crosby Pumping Station. Department of Overseas Trade, 35, Old Queen-street, S.W.

NO DATE.—**Salford.**—TRACK WORK.—Supply of special track work to the T.C. General Manager, Tramway Offices, 32, Blackfriars-street, Salford.

ROAD, SANITARY, AND WATER WORKS.

FEBRUARY 19.—**Chesterfield.**—SEWER.—Laying 2,600 yds. of 48 in. cast-iron pipe, with manholes, &c., for the T.C. Mr. V. Smith, Borough Engineer, Chesterfield. Deposit £5 5s.

FEBRUARY 19.—**Daventry.**—SEWAGE DISPOSAL WORKS.—For the extension of sewage disposal works at Woodford-cum-Membris, for the R.D.C. Mr. J. B. Williams, surveyor, Mort Hall, Daventry. Deposit £3 3s.

FEBRUARY 19.—**Frinton-on-Sea.**—ROADS.—Execution of private street works in Witton Wood-lane, for the U.D.C. Surveyor, Council House, Frinton.

FEBRUARY 19.—**Glasgow.**—BOATING POND.—Works in connection with the construction of a boating pond in Rouken Glen Park, for the T.C. Director of Parks, 249, George-street Glasgow.

FEBRUARY 19.—**Gloucester.**—WATERMAIN.—Laying a line of watermain pipes, 9 in. in dia., from Westgate-street to Southgate-street, for the T.C. Acting City Surveyor and Waterworks' Engineer, Guildhall, Gloucester. Deposit £2 2s.

FEBRUARY 19.—**Litherland.**—ROADS.—Construction of Church-road, for the U.D.C. Mr. Geo. Ponsford, Surveyor, Council Offices, Sefton-road, Litherland.

FEBRUARY 19.—**Southend-on-Sea.**—CONVENIENCES.—For the supply of materials for and erection of men's and women's conveniences on the Pier outer head, for the Corporation. Mr. Robert H. Dyer, Borough Engineer, Municipal Buildings, Clarence-road, Southend-on-Sea. Deposit £2.

FEBRUARY 19.—**Tendring.**—ROADS.—Execution of private street works in Witton Wood-lane, in the parish of Kirby-le-Soken, for the R.D.C. Mr. F. G. Vincent-Brown, surveyor, Cliff-road, Dovercourt Bay.

FEBRUARY 20.—**Elland.**—SEWERAGE WORKS.—Alterations of, and additions to, the Elland Sewage Works, and the construction of an effluent carrier, including a river crossing, for the U.D.C. Mr. Wm. Rhodes Nunns, 2, Albert-road, Saltaire, near Bradford. Deposit £2 2s.

FEBRUARY 20.—**France.**—CEMETERIES.—For construction of approximately 21 cemeteries, for the Imperial War Graves Commission. Contract 1923 L. Secretary (Works Dept.), Imperial War Graves Commission, 82, Baker-street, London, W.1. Deposit £15 15s.

FEBRUARY 20.—**Glasgow.**—ROADS, &c.—Construction of roads and sewers at Newbank, London-road, for the T.C. Director of Housing, Govan Town Hall, Glasgow.

FEBRUARY 20.—**Tottenham.**—ROADS.—Reconstruction of parts of the carriageways of the High-road and Seven Sisters-road with creosoted deal blocks on 9 in. of reinforced concrete, for the U.D.C. Surveyor, Town Hall, Tottenham, N. 15. Deposit £1 1s.

FEBRUARY 20.—**Tottenham.**—TENNIS COURTS.—Construction of five hard tennis courts, for the U.D.C. Mr. Reginald C. Graves, Clerk, Town Hall, Tottenham, N. 15.

FEBRUARY 21.—**Barnet.**—TAR SPRAYING.—For tar spraying about 50,000 yards of highways, for the U.D.C. Mr. F. P. Kindell, Surveyor, Council Offices, New Southgate, N.

FEBRUARY 21.—**London.**—PIPE LAYING, &c.—For pipe-laying, repairs, alterations to mains, &c., for the Metropolitan Water Board. Chief Engineer, Metropolitan Water Board, New River Head, 173, Rosebery-avenue, E.C. 1.

FEBRUARY 21.—**Newport (Mon).**—CONSTRUCTION OF NEW ROAD.—For constructing new and improved road from Allt-yr-yn-road to Risca-road. Wages must be paid in accordance with Ministries of Labour and Transport conditions, and contractor will be required to employ unskilled labour provided by the Employment Exchanges. Work to be completed for Newport Borough Council. Borough Engineer, Municipal Chambers, Corn-street, Newport. Deposit £3 3s.

FEBRUARY 22.—**Brecon.**—ROADS.—For carrying out (*a*) Cwmhafrena-road diversion; (*b*) Berthddu-road diversion, for the Breconshire C.C. Mr. W. L. Harpur, County Surveyor, County Offices, Brecon. Deposit £2 2s.

FEBRUARY 22.—**Epping.**—ROADS.—Making-up portion of St. John's-avenue, Harlow, for the R.D.C. Messrs. Tooley & Foster, Council Offices, Buckhurst Hill.

FEBRUARY 22.—**Folkestone.**—SEA OUTFALL.—Construction of about 750 yds. lin. of 48 in. diam. and 330 yds. of 36 in. diam. iron pipe sea outfall sewers, and about 290 yds. lin. of 15 in. iron pipe and 290 yds. lin. of 12 in. stoneware pipe collecting sewers, &c., for the T.C. Messrs. W. H. Radford & Son, Albion-chambers, King-street, Nottingham. Deposit £3 3s.

FEBRUARY 22.—**Newcastle-on-Tyne.**—CULVERT.—Construction of a brick culvert in the Byker and Heaton Cemetery, for the T.C. City Engineer's Office, Town Hall, Newcastle-on-Tyne.

FEBRUARY 22.—**Weston-super-Mare.**—SEWERAGE WORKS.—For sewerage works, for the U.D.C. Mr. Harold A. Brown, Engineer, Town Hall, Weston-super-Mare. Deposit £10.

FEBRUARY 24.—**Dewsbury.**—SEWERAGE WORKS.—Construction of a 27 in. dia. cast-iron rising main, about 740 yds. long, and other works, in connection with the construction of sewage disposal works at Mitchell Laithes, for the T.C. Messrs. J. Diggle & Son, 14, Brown-street, Manchester. Deposit £1 1s.

FEBRUARY 24.—**Middleton-in-Wharfedale.**—ROADS.—Re-making and re-surfacing roads at Middleton-in-Wharfedale Sanatorium, near Ilkley, for the West Riding C.C. West Riding Architect, County Hall, Wakefield.

FEBRUARY 24.—**Paignton.**—WATER MAIN.—Laying of a 9 in. steel water main, for the U.D.C. Mr. James A. Hutchinson, Water Engineer, Town Hall, Paignton. Deposit £2.

FEBRUARY 26.—**Clutton.**—ROADS.—For steam-rolling the roads of the R.D.C. Surveyor, Hallatrow, near Bristol.

FEBRUARY 26.—**Kirkby-in-Ashfield.**—WATERWORKS.—(1) Supplying and laying 2,850 yards of 9 in. cast-iron pipes, (2) construction of brick balancing tank, for the U.D.C. Messrs. Elliott & Brown, Burton Buildings, Nottingham. Deposit £2 2s. each contract.

FEBRUARY 26.—**Lambeth.**—SEWER.—For the construction in tunnel of an 11 ft. 4 in. internal diameter sewer, together with outlet to the River Thames, weir chambers, tumbling bays, side entrances, &c., for the L.C.C. The Chief Engineer of the Council, The Old County Hall, Spring Gardens, S.W.1. Deposit £10.

FEBRUARY 26.—**London.**—SCAVENGING.—Scavenging, &c., Thames Embankment and bridges, for the L.C.C. Chief Engineer, Old County Hall, Spring-gardens, S.W.1. Deposit £3.

FEBRUARY 26.—**London.**—SEWER DEPOSIT REMOVAL.—For removal and disposal of sewer deposit and other material for four districts, for the L.C.C. Chief Engineer, Old County-buildings, S.W. Deposit £1.

FEBRUARY 26.—**Tavistock.**—SEWERAGE WORKS.—For works of water supply, sewerage, and sewage disposal, for the R.D.C. Mr. T. H. Harris, Sanitary Surveyor. Town Hall Chambers, Tavistock.

FEBRUARY 26.—**Wandsworth.**—ROADS.—For paving part of Valley-road, Streatham, for the B.C. Mr. P. Dodd, Borough Engineer, 215, Balham High-road, S.W. 17. Deposit £1 1s.

FEBRUARY 27.—**Coulsdon.**—ROADS.—Making-up of Christchurch-road (part of), Purley, for the U.D.C. Mr. R. Chart, Council Offices, Purley. Deposit £2 2s.

FEBRUARY 28.—**Abingdon.**—WATER SUPPLY.—For water supply works for Sutton Courtenay, Berks, for the R.D.C. Mr. Guthrie Allsebrook, 29, Crown-street, Reading. Deposit £2 2s.

FEBRUARY 28.—**Fifeshire.**—ROADS.—For tar-spraying and tar-grouting, for the C.C. Mr. W. Boyd, Surveyor's Office, 12, Crossgate, Cupar-Fife.

FEBRUARY 28.—**Kidderminster.**—SEWERS.—Laying cast-iron and stoneware sewers in Comberton and Short Heath districts, for the T.C. Messrs. Willcox & Raikes, 63, Temple-row, Birmingham. Deposit £5 5s.

✱MARCH 1.—**Lambeth.**—FOOTPATH, &c.—For the formation of a new footpath and roadway, with incidental works in connection with the widening of that portion of Herne-hill opposite the Casino House Estate, for the B.C. Mr. H. E. Anderson, Borough Engineer, Town Hall, Brixton, S.W.2. Deposit £1 1s.

MARCH 7.—**Greenford.**—ROADS.—Reconstruction of an existing road and construction of a new road at Greenford, for the Middlesex C.C. Mr. A. Dryland, County Engineer, Middlesex Guildhall, Westminster, S.W.1. Deposit £5 5s.

NO DATE.—**Inverness.**—TENNIS COURTS.—For the 2-lin. finishing coats of eight tennis courts, and wire-net fencing and iron standards in connection with same. Mr. Alex. F. Mackenzie, Burgh Surveyor, Inverness.

Competitions.

(*See Competition News, page* 268.)

Auction Sales, Tenders, etc.

✱**London.**—Messrs. Veryard & Yates will sell the following on the dates mentioned below:—February 22.—126, Norwood-road, S.E., useful building material, &c. (without reserve). February 27.—255, Clapham-road, S.W., stock of timber, fittings, and building material from demolition of buildings (without reserve). February 28 and two following days.—47A, Rectory-grove, Clapham, S.W. (without reserve), dissolution of partnership. New and partly-used stores and other miscellaneous effects. Auctioneers, 4, Tokenhouse Buildings, E.C.2, and 265, Norwood-road, S.E.27.

MARCH 6.—**Southampton.**—Messrs. Waller & King will sell at the Auction Mart the Freehold Residential Property "Springhill Court," also "Cleveland Cottage," No. 63, Hill-lane. Auctioneers, Auction Mart, Southampton.

Public Appointments.

✱FEBRUARY 24.—**Eastbourne.**—Building inspector required to act as assistant building surveyor to the Borough Engineer. Mr. Leslie Roseveare, M.Inst.C.E., Borough Engineer, Town Hall, Eastbourne.

NO DATE.—**Cardiff.**—The Public Works Committee has recommended the City Council to invite applications for a new City Engineer (in place of Mr. E. J. Elford, President Inst.M. and Cy. Engineers, resigned), at commencing salary of £1,250, rising by £50 per annum to £1,500.

✱NO DATE.—**Tanganyika.**—Quantity Surveyor required by the Government for a tour of 20 to 30 months' service with possible extension in Tanganyika territory. Crown Agents for the Colonies, 4, Millbank, London, S.W.1., quoting M/11776.

✱NO DATE.—**Yorkshire.**—Required at Catterick Camp, Yorkshire, temporary services of (*a*) Quantity Surveyor's Assistant, (*b*) Architectural Draughtsman, (*c*) Foreman of Works. Ex-Service men preferred. Chief Engineer, Headquarters, Northern Command, York.

TRADE NEWS.

The British Reinforced Concrete Engineering Co., Ltd., have removed their branch office at Leeds to 5, East Parade. Mr. Ainslie Reynolds, M.I.Struct.E., has joined the Roads Department of the Company.

Messrs. Crittall Freeman Bronze, Ltd., 246, High Holborn, W.C.1, send us a copy of a brochure they have recently published showing examples of decorative bronze work they have executed during the past year.

A new wall-board, called "London Wall-board," a cheap and efficient substitute for lath and plaster, with a particularly hard texture, has been put on the market. It is stocked in sizes of 2 ft. 6 in., 3 ft., and 4 ft. in width by 6 ft. and 8 ft. long. Further particulars may be obtained from Limehouse Mills, Haigh's Wharf, Narrow-street, Limehouse, E.14 (Telephone, East 3995).

In view of the fact that panelling in finely figured woods is now being largely used for interior decorative schemes, Messrs. James Latham, Ltd., London, E.C.2, inform us that they are making a speciality of woods of this description. At Leeside Wharf, Clapton, the firm have mills and storage covering over 20 acres, and their stocks include finely figured walnut, teak in all thicknesses and up to 30 in. wide, mahogany panelling, counter tops (maximum size, 30 ft. by 3 ft.), Western yellow pine suitable for pattern making, ranging up to 24 in. wide, and large stocks of Japanese oak for flooring, logs, board or planks. The firm are also handling an importation of Nigerian mahogany of an excellent size and texture. A process of drying ensures all woods being absolutely seasoned before being sent out. Messrs. Latham's mills are in close proximity to the River Lea up which all their materials are shipped. In the near vicinity are railway sidings which provide transport facilities at a minimum of cost and rapidity of dispatch.

Tender.

Owing to a typographical error in our last issue, the name of the quantity surveyors in connection with the demolition of the laundry and the erection of a new building for the Hackney Union was printed as Messrs. Wood Bros. This should have been Messrs. Hood Bros., of 8, Union-court, Old Broad-street, E.C.2.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge. £ s. d.

Best Stocks 4 2 0
Second Hard Stocks 3 17 0

Per 1000. Delivered at London Goods Stations.

Flettons, at £ s. d. — £ s. d.
King's Cross 2 15 0 — Best Blue Pressed Staffs. 9 11 6
Do. grooved for plaster..... 2 17 0 — Do. Bullnose .. 10 1 6
Do. Bullnose .. 3 10 0 — Blue Wire Cuts 7 11 6

Best Stourbridge Fire bricks:—
2½ in. .. .. 11 3 0 — 3 in. 13 2 0

GLAZED BRICKS—
Best White, Ivory, and Salt Glazed Stretchers .. 22 0 0 — D'ble Str'tch'rs 30 10 0; D'ble Headers 27 10 0; One Side and two Ends .. 31 10 0
Headers..... 21 10 0 — Two Sides and one End 32 10 0
Quoins, Bullnose and 4½in. Flats ..... 28 10 0 — Splays and Squints..... 30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

	s.	d.		
Thames Ballast	13	6	per yard,	delivered 2 miles radius Paddington.
Pit Sand	16	0	" "	
Thames Sand	16	6	" "	
Best Washed Sand	16	6	" "	
¾ in. Shingle for Ferro-Concrete	14	0	" "	
½ in. "	15	0	" "	
¾ in. Broken Brick	10	6	" "	
Fan Breeze	5	6	" "	

Per ton delivered in London area in full van loads.

Best Portland Cement. British Standard Specification Test £2 18 0 — £3 5 3
51/- alongside at Vauxhall in 80-ton lots.

Ferrocrete per ton extra on above 10 0
Roman Cement 8 15 0
Parian Cement 5 13 0
Keene's Cement, White 5 8 0
" " Pink 5 3 0
Plaster, Coarse, Pink 3 0 0
" " White 3 12 6
" Fine 5 12 0
Sirapite, Coarse 3 12 0
" Finish 4 0 0
Grey Stone Lime 2 11 3
Chalk Lime 2 11 3
Best Ground Blue Lias Lime..... 2 14 0
Hair 17 0 0
Granite Chippings 1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 37s. 6d. per ton at rly. dpt.

STONE.

BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube..... s. d. 2 11
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube 3 2
Do. do. delivered on road wagons at Nine Elms Depot 3 3

PORTLAND STONE—
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube 4 7
Do. do. delivered on road wagons at above stations, per ft. cube.. ..... 4 8
White basebed, 3d. per ft. cube extra.
NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ¼d. beyond 30 ft.

YORK STONE, BLUE—*Robin Hood Quality.*
Delivered at any Goods Station London. s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) .....Per Ft. Super 5 3
6 in. rubbed two sides, ditto ..... " 5 9
3 in. sawn two sides slabs (random sizes) .. 2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) ..... " 1 5½
1½ in. to 2 in. ditto, ditto ..... " 1 3

HARD YORK—
Delivered at any Goods Station London.
Scappled random blocks .....Per Ft. Cube 5 8
6 in. sawn two sides landing to sizes (under 40ft. super.) .....Per Ft. Super 5 4½
6 in. rubbed two sides ditto ..... " 6 0½
4 in. sawn two sides slabs (random sizes) .. " 2 10
3 in. ditto, ditto .. " 2 5
2 in. self-faced random flags ..Per Yard Super 7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads. s. d.
Plain ..... per ft. cube. 7 6
Moulded ..... " " 9 0
Cills ..... " " 10 0

WOOD.

GOOD BUILDING DEAL.

Inches	per stan.	Inches.	per stan.
4 × 11	.... £34 0	3 × 6	.... £22 10
4 × 9	.... 34 0	3 × 11	.... 32 10
4 × 8	.... 26 0	2 × 11	.... 32 10
4 × 7	.... 24 0	3 × 9	.... 30 0
3 × 8	.... 24 0	2½ × 9	.... 28 0
3 × 7	.... 22 10	3 × 4½	.... 21 0
2½ × 7	.... 22 10	3 × 4	.... 21 0

PLANED BOARDS.

1 × 11 .... 38 10 | 1 × 9 .... 36 0

PLAIN EDGE FLOORING.

Inches	per sq.	Inches	per sq.
¾	20/-	1¼	32/6
¾	22/-	1½	37/6
1	25/-		

WOOD (*Continued*).

TONGUED AND GROOVED FLOORING.

Inches	per sq.
1	25/-
1¼	32/6
1½	37/6

MATCHINGS (BEST).

Inches	per sq.
¾	17/6
¾	22/-
1	25/-

BATTENS.

Inches	s.	d.
¾ × 2	2	4 per 100 ft.

SAWN LATHS.

Per bundle 0 2 9

Dry Wainscot Oak, per ft. super, as inch	0	2	9	to	0 2 6
¾ in. do. do.	0	1	6	to	0 2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1	9	to	0 2 6
Cuba Mahogany	0	3	0	to	0 4 0
Teak (Rangoon, Moulmein or Java), per load.. ..	45	0	0	to	50 0 0
American Whitewood planks, per ft. cube ..	0	14	0	to	0 16 0
Best Scotch Glue, per cwt.	6	15	0	to	—
Liquid Glue, per cwt.....	4	7	0	to	5 10 0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£	s.	d.		£	s.	d.
24 by 12	41	15	0	18 by 10	23	10	0
22 by 12	37	15	0	18 by 9	20	15	0
22 by 11	34	15	0	16 by 10	19	12	6
20 by 12	33	0	0	16 by 8	15	5	0
20 by 10	28	10	0				

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or Staffordshire district.....	5 7 6
Ditto hand-made ditto.....	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) { Hand made	0 9 6
Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON— £ s. d.
R. S. Joists, cut and fitted 12 10 0
Plain Compound Girders 14 10 0
" " Stanchions 16 10 0
In Roof Work 19 10 0

WROUGHT IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works. 2½ percent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas.....	60 %	60 %	70 %
Water.....	55 %	55 %	65 %
Steam	50 %	50 %	60 %
Galv'd—			
Gas.....	47½%	47½%	57½%
Water.....	41½%	41½%	51½%
Steam	35 %	35 %	45 %

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
2 in. per yd. in 6fts plain	2 9	2 0	2 5
2½ in. "	3 2½	2 3	3 0
3 in. "	3 9½	2 5	3 8
3½ in. "	4 2	3 0	4 3
4 in. "	4 7½	3 5	4 11

RAIN-WATER PIPES, &c.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
2 in. per yd. in 6fts. plain	1 8½	1 3½	1 9
2½ in. "	1 11	1 6	2 1
3 in. "	2 3½	1 10½	2 9½
3½ in. "	2 8½	2 2½	3 3
4 in. "	3 2	2 8	3 11½

L.C.C. DRAIN PIPES.—9 ft. lengths. London Prices per yd.: 4 in., 5/1. .. 5 in., 6/8. .. 6 in., 7/10.

IRON—	Per ton in London. £ s. d.		£ s. d.
Common Bars	13 0 0	to	14 0 0
Staffordshire Crown Bars — good merchant quality	14 0 0	..	15 0 0
Staffordshire "Marked Bars"	16 0 0	—	17 0 0
Mild Steel Bars	12 10 0	—	13 10 0
Steel Bars, Ferro-Concrete quality, basis price ..	12 10 0	..	13 10 0
Hoop iron, basis price ..	15 10 0	—	16 10 0
" " Galvanised ..	29 0 0	—	31 0 0
Soft Steel Sheets, Black— Ordinary sizes to 20 g.	14 10 0	..	15 10 0
" " " 24 g.	15 10 0	..	16 10 0
" " " 26 g.	17 10 0	..	18 10 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality— Ordinary sizes, 6ft. by 2ft. to 3ft. to 20 g.	20 10 0	..	21 10 0
Ordinary sizes, 6ft. by 2ft. to 3ft. to 22 g. and 24 g.....	21 10 0	..	22 10 0
Ordinary sizes, 6ft. by 2ft. to 3ft. to 26 g...	23 10 0	..	25 10 0
Flat and Galvanised Corrugated Sheets— Ordinary sizes, 6 ft. to 9ft. 20 g.	20 0 0	..	21 0 0
Ordinary sizes, 6ft. to 9ft. 22 g. and 24 g.	20 10 0	..	21 10 0
Ordinary sizes, 6ft. to 9ft. 26 g.	22 10 0	..	23 10 0

METALS (*Continued*).

Per ton in London.

	£ s. d.		£ s. d.
Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker ..	22 10 0	..	23 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	23 10 0	..	25 10 0
Best Soft Steel Sheets, 26 g.	25 0 0	..	26 0 0
Cut Nails, 3in. to 6in. ..	21 10 0	..	23 0 0

(under 3in. usual trade extras.)

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot super.

LEAD, &c.

Delivered in London.

	£ s. d.		£ s. d.
LEAD—Sheet, English, 4 lb. and up	37 0 0	..	—
Pipe in coils	37 10 0	..	—
Soil Pipe	40 0 0	..	—
Compo pipe	41 0 0	..	—

NOTE—Country delivery, 30s. per ton extra; lots under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills ..... per ton	25 0 0	..	—
Do., ex country, carriage forward..... per ton	26 0 0	—	—

COPPER—
Strong Sheet ....per lb 0 2 3 — —
Thin " .... " 0 2 4 .. —
Copper nails .... " 0 2 3 .. —
Copper wire .... " 0 2 4 — —
TIN—English Ingots " 0 1 11 .. —
SOLDER—Plumbers' " 0 0 11 .. —
Tinmen's " 0 1 1 .. —
Blowpipe " 0 1 4 — —

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
15 oz. fourths	2½d.	32 oz. fourths	8½d.
" thirds	4½d.	" thirds	10d.
21 " fourths	4½d.	Obscured Sheet, 15 oz.	3½d.
" thirds	6d.	21 "	5½d.
26 " fourths	5½d.	Fluted 15 oz. 7½d.	21oz. 9½d.
" thirds	7½d.	Kn'tted 15 " 5½d.	21 " 7d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
⅛ Rolled plate	4½d.
⅛ Rough rolled	5½d.
¼ Rough rolled	5½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral.....	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

PAINTS, &c.

		£ s. d.
Raw Linseed Oil in pipes..... per gallon		0 3 9
" " " in barrels .... "		0 3 11
" " " in drums .... "		0 4 2
Boiled " " in barrels .... "		0 4 3
" " in drums .... "		0 4 5
Turpentine in barrels	"	0 8 9
" in drums (10 gall.) ..	"	0 9 0
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)		57 15 0

GENUINE WHITE LEAD PAINT—
"Father Thames," "Nine Elms," "Park," "Supremus" and other best brands (in 14 lb. tins) not less than 5 cwt. lots .....per ton delivered 79 15 0
Red Lead, Dry (packages extra) .. per ton 41 0 0
Best Linseed Oil Putty ..... per cwt. 0 16 0
Filacol..... per cwt. 0 15 6
Size. X D Quality..... firk. 0 3 6

VARNISHES, &c.

		Per gallon. £ s. d.
Oak Varnish.....Outside		0 14 0
Fine ditto ..... ditto		0 16 0
Fine Copal ..... ditto		0 18 0
Pale Copal ..... ditto		1 0 0
Pale Copal Carriage ..... ditto		1 4 0
Best ditto ..... ditto		1 12 0
Floor Varnish..... Inside		0 18 0
Fine Pale Paper ..... ditto		0 18 0
Fine Copal Cabinet ..... ditto		1 2 6
Fine Copal flatting ..... ditto		1 0 6
Hard drying Oak ..... ditto		0 18 0
Fine Hard drying Oak ..... ditto		0 19 0
Fine Copal Varnish ..... ditto		1 0 0
Pale ditto ..... ditto		1 2 0
Best ditto ..... ditto		1 12 0
Best Japan Gold Size.....		1 12 0
Best Black Japan		0 12 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 9 0
Berlin Black.....		0 14 0
Knotting (patent)		1 5 0
French and Brush Polish		0 17 6
Liquid Dryers in Terebine		0 10 0
Cuirass Black Enamel		0 7 0

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	15	0
Add if in clay	" "	1	6
Add for every additional depth of 6 ft.	" "	0	9
Planking and strutting to trenches	per foot super	0	6
Do. to sides of excavation, including shoring	" "	1	2

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	40	0
Add if in underpinning in short lengths	" "	9	0
Add if in floors 6 in. thick	" "	3	9
Add if in beams	" "	4	6
Add if aggregate 1 : 2 : 4	" "	11	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	6

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	34	0	0
Add if in stocks	"	8	10	0
Add if in Staffordshire blues	"	24	0	0
Add if in Portland cement and sand	"	3	0	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

		s.	d.
Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	3
Setting ordinary register grates and stoves	each	1	1	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	5	5	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	7	6
Three-quarter-inch vertical damp course	" "	11	0
¾ inch on flats in two thicknesses	" "	8	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	4

MASON.

		s.	d.
York stone templates fixed	per foot cube	15	0
York stone sills fixed	" "	27	0
Bath stone and all labour fixed	" "	12	0
Portland stone fixed	" "	21	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	79	9
Do. 20 in. × 10 in. Do. Do.	"	90	9
Do. 24 in. × 12 in. Do. Do.	"	99	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	6
Do. joists	" "	6	0
Do. roofs, floors and partitions	" "	6	6
Do. trusses	" "	8	6

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	42/-	48/-	56/-	85/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	60	0
Do. to beams	per ft. sup.	1	6
Centres for arches	"	2	0
Gutter boards and bearers	"	1	1

FLOORING.

		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/8	2/1	2/3	2/9

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	3
Add for fitting and fixing	" "	0	6
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights ; average size	" "	4	0

DOORS.

		1¼"	1¾"	2"
Two-panel square framed	per ft. sup.	2/4	2/7	2/9
Four-panel Do.	"	2/8	3/0	3/3
Two-panel moulded both sides	"	3/0	3/3	3/6
Four-panel Do. Do.	"	3/3	3/7	3/10

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/9	1/10	2/1
Deal shelves and bearers	"	1/6	1/8	1/11
Add if cross tongued	"	2d.	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run	0	9
Mahogany handrail ; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	"	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	54	0
Do. Do. in flats	"	50	0
Extra labour and solder in coated cesspools	each	7	4
Welt joint	per ft. run.	0	6
Soldered seam	" "	1	10
Copper nailing	" "	0	7

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	10d.	1/6	1/9	3/1	3/10	
Do. service	"	1/5	1/11	2/3	3/6		
Do. soil	"						6/2
Bends in lead pipe	each					3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	6
Do. Do. Sirapite	" "	2	8
Do. Do. Keen's	" "	3	6
Add sawn lathing	" "	1	6
Add metal lathing	" "	2	10
Portland cement screed	" "	1	11
Do. plain face	" "	3	6
Mouldings in plaster	per 1 girth	0	3
One-and-a-half granolithic pavings	per yard sup.	6	3

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	1	0
26 oz. Do.	" "	1	3
Obscured sheet	" "	1	7
⅛ in. rolled plate	" "	1	0
¼ in. rough rolled or cast plate	" "	1	1
¼ in. wired cast plate	" "	1	7

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	1	0
Knotting and priming	" "	0	8
Plain painting 1 coat	" "	0	11
Do. 2 coats	" "	1	7
Do. 3 coats	" "	2	4
Do. 4 coats	" "	3	0
Graining	" "	2	5
Varnishing twice	" "	1	11
Sizing	" "	0	4
Flatting	" "	0	8
Enamel	" "	1	3
Wax polishing	per foot sup.	0	9
French polishing	" "	1	3
Preparing for and hanging paper	per piece	2/- to 4/-	

* These prices apply to new buildings only. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 12 should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

PROPOSED NEW BUILDINGS & OTHER WORKS.*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

ABERDEEN.—The T.C. has discussed the proposed scheme for the improvement of insanitary areas, involving the provision of 1,100 new dwelling-houses, and the imposition of a rate of 3d. per £1 if the complete scheme were carried out. The Council agreed to impose a rate of 1d. per £1, by means of which a third of the scheme could be undertaken in from two to three years.

BARNSLEY.—Plans have been approved for the erection of three detached dwelling-houses, Huddersfield-road, Barnsley. The architect is Mr. P. A. Hinchliffe, F.R.I.B.A., Regent-street, Barnsley.—Plans have also been approved for the erection of three dwelling-houses, Bond-road, Barnsley. Mr. W. Storrs, Huddersfield-road, Barnsley, is the architect.

BERWICK.—A scheme of new municipal buildings is proposed for North Berwick, to embrace Council Chambers and various burgh departments and offices. An important part of the scheme is the provision of a Town Hall.

BIRKENHEAD.—Plans passed by T.C.: Pair of semi-detached houses, Park-road West; alterations to shop premises, 446, New Chester-road; alterations to the concert hall, corner of Borough-road and Raffles-road; house, at corner of Tollemache-road and Buckingham-avenue.—The T.C. has decided to devote the legacies of the late Mr. John Williamson and Mr. P. A. Williamson towards the erection of an art gallery, but deferred the question of fixing the site for two months. It was announced that the amount at the disposal of the Corporation was about £36,000.

BIRMINGHAM.—The Solihull Licensing Bench have granted a provisional licence to James Barton, furniture dealer, of Earlswood, in respect to the proposed erection of a picture-house at the junction of Stratford-road and Tanworth-road, Shirley.

BLACKBURN.—Plans passed by T.C.: Billiard hall, Whalley Range, by Mr. F. W. Duckworth; additions to the Church of the Saviour, Longshaw; addition to iron works, Cobden-street, by Messrs. Henry Livesey, Ltd.; garage, Duke's Brow, by Mr. W. H. Kenyon; addition to mill, Blackamoor-road, by Messrs. M. Munroe & Sons; four houses, Lowood-place, by Messrs. W. Livesey & Sons.

BLACKPOOL.—Plans passed by T.C.: Rebuilding "Adelphi Hotel," Church-street, and alterations and additions, "Saddle Inn," Whitegate-drive, for Catterall & Swarbricks' Brewery, Ltd.; new streets, near Holly-road, for R. Fielding & Sons; extension of street, Warbreck-drive, for Gynn Estate Co., Ltd.; house, St. Stephen's-avenue, for Mr. Walker; house and shop, Piccadilly, for T. Slater; house, Anchorsholme-lane E., for R. Leach & Son; two houses, Hawes Side-lane, for J. & H. West; two houses, Princes-avenue, for W. Hyde; two houses, Holly-road, for R. Fielding & Son; bungalow, Links-road, for T. Pickles; two bungalows, Windsor-avenue, and house, Windsor-avenue, for Suthers, Wilson & Randall; bungalow, Bank-avenue, for J. England & Son; bungalow, Westmorland-avenue, for G. Gosling; five houses and garages, Keswick-road, for Parker & Allen; bungalow, Bank-avenue, for J. England & Son; bungalow, Westminster-road, for Mr. Iddon; house, Kingston-avenue, for F. R. Booth; five houses and garages, Keswick-road, for F. Lumb; five houses, Elm-street, for J. Clarke; two houses, Newton-drive, for H. H. Vickers; four houses, Ord-avenue, for W. Watson; house, Hornby-road, for J. Clarke; five houses, Condor-grove, for Foster & Dickinson; two houses and one garage, Broadway, for J. Midgley; four houses and garages, St. Stephen's-avenue, for Lord & Mellodew; four houses, Warbreck-drive, for Mr. Snape; house, Cumberland-avenue, for E. Smith; two bungalows, Piccadilly, for J. Sutcliffe; house, Whitegate-drive, for W. Parkinson; bungalow, Piccadilly, for J. Newby; two houses, St. Anne's-road and Sherwood-avenue, for Harrison & Pilkington; store room, 104, Central-drive, for J. W. Starkie; alterations, "The Moore," Bispham, for W. Lee; alterations, Raikes-view, for Dr. Dunderdale; additions, 4, Wyre-grove, for —. Mellor; alterations, 32, Lowrey-terrace, for J. Hulme; additions to house, Westminster-road, for H. Clark; alterations, 7, Queen's-square, for J. Fielding & Sons, Ltd.; alterations, 18, Raikes-road, for H. G. Parker; alterations, 160, Warbreck-road, for F. Burchill; alterations, Abingdon-street, for Coop & Naylor; alterations, 66, Foxhall-road, for Mrs. E. Lowe; alterations, Whitegate-drive and Kensington-road, for Masters & Sons; alterations, 13, Albert-terrace, for Brown & Mallalieu; showrooms to garage, Whitegate-drive, for Johnson & Starley; additions, 43 and 45, Talbot-road, for A. Ormerod; garage, Wolverton-avenue, for C. Benyon; motor house, Ormond-avenue, for G. H. Ripley; seven houses and three garages, Mere-road and Olive-grove, for H. G. Parker; two houses and one garage, Ripon-road and Portland-road, for J. Harris; additions, Kingsclere, South Promenade, for J. J. Mannock; new streets, Silverwood-avenue, for Harrison & Pilkington; house, Arundel-avenue, for Pilling, France & Co. (Norbreck), Ltd.; seven houses, Mayfield-avenue, for A. J. Laid; five houses, St. Alban's-road, for E. Lumb; arcade and café, Promenade and Market-street, for B. Feldman & Co.; new streets, Greenwood-avenue, for Wilson Bros.; six houses, Hall-avenue, for J. & W. Ormerod; eight bungalows, Wilson-avenue, for Wilson Bros.; four bungalows, Bispham-road, for G. Slater; alterations, 17, Birley-street, for J. Parkinson; garage, 453, Waterloo-road, for C. J. Jackson; bungalow, Greenwood-avenue, for K. Clegg; bungalow, Bank-avenue, for J. England & Son.

BOLTON.—Plans passed by T.C.: McCreath, Taylor & Co., for transformer house, Ellesmere-street; J. Farrell, converting houses into shop, Burn-street and Crook-street; J. B. Scholes & Sons, motor shed, off Blackburn-road; John Cheadle, extension to bakery, 57A, Newport-street; M. Goldstone, extension to shop, 53, Higher Bridge-street; W. A. Shone, house, &c., Bennetts-lane; Wm. Walker & Sons, Ltd., extension to premises, St. Helena-road; Wm. Walker & Sons, Ltd., extension to premises, off Nelson-street; H. Whitehurst & Sons, garage and warehouse, Crown-street; Leonard Tobutt, additions to premises, 49, Higher Bridge-street; Peter Hunt, for bakery, St. George's-road; Exors. of E. J. Ormrod, new streets, north of Lonsdale-road; Leigh Bros., Ltd., street, Melrose-avenue; Leigh Bros., Ltd., pair houses, Church-road; Thomas Woods, four houses, Easedale-road; Wm. Gornall & Sons, house, Carlton-road; T. J. Baxendale, house, Regent-road; Messrs. Harvey & Mason, two bungalows, Regent-road; D. Wynne-Thomas, house, Regent-road; E. Leigh, bungalow, Chorley New-road; T. Blakley, pair of houses, Green-lane; Wm. Gornall & Sons, Ltd., four houses and house and shop, Crompton Fold Estate, and house and shop, Road 6, Crompton Fold; Leigh Bros., ten houses, Dudley-avenue.

BRIDGEND.—The Mid-Glamorgan Water Board has decided to construct a reservoir at Blackwell. The Board will shortly put in hand extension of pipe line to Nantymoel, and is to take plebiscite of Coychurch inhabitants on £3,000 main connecting scheme. The U.D.C. has received intimation that Ministry of Health is prepared to consider question of Council erecting more houses, and scheme is to be put forward. The Penybont (Bridgend) R.D.C. has applied for loan of £10,000 for a housing scheme. The Engineer, Mr. Moses Flower, has put forward to Penybont R.D.C. revised estimates of Pencoed sewerage scheme at £33,864, and the matter will shortly be decided upon.

BRYNAMMAN.—A meeting of subscribers has approved of plan submitted for erection of new public hall and library at estimated cost of £8,000. The architect is Sir Charles Ruthen & Co., Alexandra-chambers, Swansea.

BRISTOL.—The Temple Meads goods station is to be entirely reconstructed and provided with modern electrical machinery at a cost of over half a million pounds, and a yard for shunting by gravitation the 8,000 to 9,000 wagons dealt with every week is to be laid out at an additional cost of over £15,000.

CARMARTHENSHIRE.—The County Education Committee has instructed that plans be prepared for a new Gwendraeth Valley Secondary School, to be erected at Cwmmawr to accommodate 400 pupils. The Board of Education wrote that they were prepared to consider plans for the building of a Central School at Brynamman decided upon by the Committee. The Committee also decided to proceed forthwith with the erection of a Central School at Ammanford, with accommodation for up to 500 pupils, and to erect an Elementary School at Ammanford pending erection of Central School, to afford immediate relief to overcrowding. The Committee has decided to reconstruct the swimming baths for use, and have directed the immediate submission of plans. The County Council has decided to advance £40,000 toward the construction of a light railway from Lampeter to Llandilo.

CHEPSTOW.—The R.D.C. has applied for grant toward the Caldicot drainage scheme estimated to cost £2,000.

EASTLEIGH.—The Licensing Magistrates have granted a licence in respect of an hotel to be built by Mr. G. E. Booth.

EDINBURGH.—The main committee of the Scottish National War Memorial have approved revised plans submitted by Sir Robert Lorimer. Under the new scheme Billings Buildings, in Edinburgh Castle, will be transformed into a Hall of Honour, with the addition of an apse, in which will be placed a Roll of Honour. Thus the traditional outline of the Castle will not be materially altered.

GELLYGAER.—The Council has resolved to erect 12 "B" type and 8 "A" type houses at Bargoed, and to undertake the Dri-Cylla sewer laying.

GOUROCK.—An important building scheme which will in course of time form a large and desirable extension of the Renfrewshire coast resort, is about to be started to the west of Gourock. The area involved, which is at present outwith the burgh, is part of the Ardgowan estate, and lies along the Cloch-road, which separates the site from the shore of the Clyde from the town's boundary near the Royal Gourock Yacht Club-house at Ashton to M'Ilroy's Point. Sir Hugh Shaw-Stewart, the Superior, has decided to open up this section of his lands for feuing, and Mr. William Steel Tarbet, building contractor, Gourock, has acquired an option over a large portion of the ground. It is proposed to erect a good class type of cottage and villa.

GOWER.—Application has been made by the R.D.C. for sanction to borrow sufficient money to construct a new road between Kittle and Bishopston to obviate Kittle-hill gradient. This includes a scheme for a stone bridge 33 ft. wide across Bishopston-road near Beaufort Arms, submitted by Messrs. Morgan, Davies & Partners, Swansea.—The Board of Guardians will shortly make extensions to Penmaen Institution, an estimate of work being £500.

HALIFAX.—Plans passed by T.C.: Clement C. Lloyd conversion of stables to garages, Swires-road; Mrs. Mary Alice Shaw, house, Warley-road; Trustees of S. Marie's Church, Rev. Canon Foley, church extension, Gibbet-street; Baldwin & Walker, Ltd., additions to offices, West Croft Mills, King Cross; Second Church of Christ Scientist, new church, Akeds-road; J. Mackintosh & Sons, Ltd., Welfare offices, &c., Albion Mills; Arthur Wardle, three garages and workshop, Green Mount, Hanson-lane.

HAYWARDS HEATH.—Plans passed by U.D.C.: Detached house in Ashenground-road, for Mr. A. W. Gowin, and additions to Sir Richard's Church, in Sydney-road.

ILKESTON.—Plans passed by T.C.: Dairy, Kingsway, for Mr. E. B. Shelton; house, Longfield-lane, for Mrs. F. Edwards; house, Sudbury-avenue, for Mr. A. Beards; garage, South-street, for Mr. F. G. Meachem; shops and billiard room, Nottingham-road and Roberts-street, for Mr. J. A. Bush.

KIRKINTILLOCH.—At the Dean of Guild Court plans were submitted by Mr. John Shanks, architect, for the erection at Broomhill of a nurses' hostel. The building will have thirty-six bedrooms, with a sitting-room and lavatory accommodation, and is to be erected immediately to the west of the main building and facing the avenue. The plans were passed.

LEEDS.—Plans will be presented before the justices for a considerable enlargement of the Griffin Hotel in Boar-lane, providing sixty-one additional bedrooms and bringing the accommodation up to a total of a hundred and forty.

LIVERPOOL.—The T.C. proposes borrowing £4,649 for the erection of a seamen's dispensary at the corner of Paradise-street and Upper Frederick-street.

LLANDILO.—The D.C. has decided to carry out Cwmgorw drainage scheme, and has applied for sanction to loan of £9,500 for the work.

LLANELLY.—The T.C. is considering erecting a public slaughter-house. The T.C. has decided upon Isolation Hospital extensions. The provision of covering in market stalls at estimated cost of £500 to £1,000 is being considered.

LONDON (BERMONDSEY).—Plans passed by B.C.:—Warehouse at Butler's Wharf, for G. Potton & Sons.

MAESTEG.—The General Committee of the Maesteg and District Hospital have decided to proceed with the erection of new domestic quarters at the institution, the cost of which is estimated at between £5,000 and £6,000.

MONTEVIDEO.—The Municipal Engineer has submitted to the municipal authorities a scheme for the construction of an embankment, fifty metres wide. Part of the embankment is to be built by the Municipality, but it is stated that public tenders will be invited for the construction of that part which will run between Calle Medanos and Calle Jackson.

MORPETH.—In connection with the Ashington Coal Co.'s big development scheme at Linton, plans were submitted to the R.D.C. for twenty-one five-roomed houses and seventy-three three-roomed houses. The plans were passed.

MERTHYR TYDFIL.—The Public Works' Committee has decided to put in hand the Pant-road improvement scheme as soon as possible, and has applied for grant to asphalt the Troedyrhiw-road.

NELSON.—The T.C. has decided to erect a new bridge across the Leeds and Liverpool Canal at Carr-road.

NEWCASTLE-ON-TYNE.—Subject to the approval of the Ministry the Corporation has decided to enter into a provisional contract with Mr. J. S. Hetherington for the completion of the work entered upon by the Building Guild on the Pendower Estate. The provisional tender for the 84 houses is £36,948, or £2,950 in excess of the original tender accepted from the Building Guild.—Baths are to be erected at Heaton and Walker by the Newcastle Corporation. The Estate and Property Committee have recommended that the tenders of Mr. Stanley Miller be accepted. The total expenditure of the Walker baths is £18,174, and of the Heaton baths £16,780.

NEWPORT (MON).—At a meeting held on February 9 of the G.W.R. Directors and General Manager the reconstruction of Newport Station and extensions in connection therewith, to cost approximately £500,000, was decided upon, and also that the work be proceeded with at once. It was further decided to carry out work by contract, and this consists of complete remodelling and extension of Newport platforms to length of 1,100 ft., a new platform at Devon-place siding, and construction, altogether, of four through platforms. A long subway for passengers with parcel and booking accommodation is also to be provided by extending present buildings. All platforms are to be covered. Further work decided upon is the extension of High-street goods depot. Good frontage buildings, with three floors for accommodation and refreshments, complete the scheme.—The Borough Council has in hand a scheme for constructing a new cattle market on the eastern bank of the Usk. The Council has received a letter from H.M. Office of Works asking if 1,000 sq. yards of ground is available on the Castle grounds for construction of a Repeater Station. The scheme for constructing a museum and art gallery on the Castle grounds by the Council has been advanced by notification from private individuals that they will subscribe to such a scheme. An additional fifty houses are to be erected on the Somerton Estate site.

NORTHAMPTON.—Plans passed by T.C.: New house, Forfar-street, for Mr. T. A. Oliver; new house and motor garage, 15–17, Clarence-avenue, for Mr. E. Faulkner; two new dwelling-houses, Birchfield-road, for Messrs. W. J. Lack and T. B. Revitt; extension to offices, factory, Greenwood-road, for Messrs. C. & E. Lewis; new club, corner Wellingborough-road and Stimpson-avenue, for the Monks Park Club and Institute; new office, Regent-square, for Mr. F. Faulkner; new garage, Hester-street, for Mr. C. W. Peacock; new garage, saddle-room, and coal place, 49, Stimpson-avenue, for Mr. W. H. Hall; alterations to premises, 133, St. James'-road, for Mr. E. Dennis; new w.c., Old Black Lion Inn, for Messrs. T. Manning & Co.

* See also our List of Contracts, Competitions, etc.

Ltd.; additions to premises, 56, Abington-street, for Messrs. E. Archer & Sons, Ltd.: new billiard hall, 32, Bridge-street, for Messrs. C. S. Percival & W. Wheeler; new dwelling house, Ashburnham-road, for Mr. Watkins; new billiard hall, Market-square, for Mr. A. Cockerill; new dwelling house, Cedar-road, for Mr. W. N. Gordon; new outbuildings, 2, Albion-place, for Mr. W. E. Eyton-Jones; new garage, Bowden-road, for Mr. G. Smith; new house, Park-avenue, for Mr. F. Watts; new house and garages, corner of Abingtongrove and Holly-road, for Mr. A. J. Parkinson; new garage, Derngate, for Mr. E. H. Wakeford; new garage, 31, Delapre-gardens, for Mr. H. N. Morris.

NUNEATON.—Plans passed by T.C.: Bungalow, Attleborough Quarry, Lutterworth-road, Messrs. T. Smith & Sons; timber framed bungalow, Ansley-road, Aston Timber & Portable Building Co.; nine houses, Norman-avenue, Messrs. Hope & Aldridge; house, College-street, Mr. J. W. James; eight houses, junction Harefield-road and New-street, Mr. W. R. Harris; bungalow, Ansley-road, Mr. S. Poultney.

OLDBURY.—At the Licensing Sessions Mr. P. W. Williams applied for sanction for the rebuilding of the Picture House, Birmingham-street, explaining that it was proposed to spend £10,000 on the work. The magistrates adjourned the application.

OLD HILL.—An application to carry out alterations for the improvement of the domestic arrangements at the Gate Hangs Well Inn, Hales Owen-road, Old Hill, has been granted by the justices.

OXFORD.—Plans passed by T.C.: Sanitary improvements at school premises, for Mr. A. E. Lynam, Bardwell-road; house, 83, James-street, for Mr. W. E. Barrett; house, Straffield-road, for Mr. J. H. Bruce, 5, South Parade, Summertown; stable and van shed, St. Mary-road, for Oxford Dairy Farmers, Ltd.; workshops, Friars Entry, for Elliston & Cavell; cottage, Fairacres House, Daubeny-road, for Convent of the Incarnation; additions to big game museum, Woodstock-road, for Mr. Ballard.

PENARTH.—The Ministry of Health has sanctioned the erection of twelve houses by the Council at Andrew-road, Cogan. The Electric Lighting Company have advanced an application for extended powers that will involve considerable additions being made.

PEMBROKESHIRE.—The County Main Roads' Committee has decided to undertake work of resurfacing with water-bound granite and tarring 2½ miles of road from Llebach Church to Coweston bridge at estimated cost of £9,575.—The County Education Committee has resolved to erect small school at Cappin, and will during the year spend £4,500, estimated, on building and land improvement and upkeep.—The G.W.R. Co. Directors have intimated that a new station will be erected at Heathfield and that additional accommodation for passengers and cattle will be erected at Goodwick.

PONTYPRIDD.—At a meeting of the Pontypridd Burial Board, Mr. H. Malcolm Laing, architect, London, attended and explained the plans and bills of quantities he is preparing for the Board for a new crematorium at Glyntaff Cemetery. The U.D.C. has called for plans and estimates of (*a*) carriage-way ferro-concrete bridge, and (*b*) ferro-concrete foot-bridge, over river Taff to public park, and has instructed Surveyor to proceed with lay-out of children's playground and pond. The Treforest Labour Party has submitted plans for construction of a new hall in Forest-road to the Pontypridd U.D.C.

PRESTWICK.—At a meeting of Prestwick Dean of Guild Court plans were passed for the formation of a new street to open up new feuing ground. Plans were also passed for three new bungalows and for additions to a dwelling house.

PLYMOUTH.—Plans passed by T.C.: Mr. Hill, two houses, Cedarcroft-road; Bond, Pearce & Co., nine dwelling houses, South View-terrace; Electricity Department, transformer chamber, St. Michael's-terrace-lane, Plymouth; W. G. Heath & Co., garage, Mill-street, Plymouth; Ash & Son, two houses, Prospect-row, Devonport; Brown, Wills & Nicholson, smoke houses, Beechwood Factory, Alexandra-road; Stoke Church Sunday School Committee, cloak room, Stoke Church Sunday School; A. G. Harris, class room, Walker-terrace; Mr. Budge, extension of workshop, rear of 63, Chestnut-road; S. J. Heal, five dwelling houses, Whiteford-road; Commander C. W. Jefferson, garages, Weston Park-road; E. J. Elliott, public hall, &c, Exmouth-road; F. Giles, lock-up garages, Lower Compton-road.

SOUTH SHIELDS.—Plans passed by T.C.: Mr. Howard Hill, for The United Yeast Co., Ltd., extension to garage, John Clay-street; Mr. Howard Hill, for J. W. Grainger, motor garage, 67, Westoe-road; Mr. Howard Hill, for A. J. Robson, alterations to premises, corner Fowler-street and Winchester-street; Mr. J. H. Morton, for J. M. Moore & Armstrongs, 12 semi-detached villas, West avenue, Harton; Messrs. T. A. Page & Son, for Messrs. Jos. Johnson (Durham), Ltd., rebuilding of "Vigilant Hotel," Sunderland-road, Harton; Messrs. T. A. Page & Son, for Jas. Young, alterations to "North Green," St. George's-terrace, Westoe; Messrs. Davidson & Son, for A. F. Slade, shop and dwelling house, Prince Edward-road, Harton; Messrs. Davidson & Son, for Messrs. W. Duncan, house and shop, Prince Edward-road, Harton.

SCALBY.—Plans passed by U.D.C.: House for Mrs. Clarke, The Park; bungalow for Mr. G. W. Spence, Throxenby-lane; two bungalows and one house by Mr. Hanson, adjacent to Newby Mill; house, shop and café, for Mr. Hewitt, corner of Cross-road; two houses, for Mrs. Appleby; bungalow for Mrs. Parkinson; and bungalow for Mrs. Patrick, on Cross-road.

STOCKTON.—The T.C. have passed plans for the erection of 24 terrace houses at Hartburn Village by Messrs. Barrett & Broadbent.

STOURBRIDGE.—In the Staffordshire district a new locomotive depot is to be provided at Stourbridge at a round cost of £120,000 by the Great Western Railway Co., and extensive improvements involving the provision of electric lifting appliances are to be carried out at the Walsall-street goods depot at a cost of over £20,000.

STRETFORD.—Plans passed by U.D.C.: Alterations to bank premises, &c., Brooks's Bar, for the Bank of Liverpool & Martin's, Ltd.; four houses, Reynolds-road, for Mr. Vincent Slater; warehouse, Third-avenue, for the Automatic Glass Bottle Co.; motor house, 58, Shrewsbury-street, Mr. Alfred Golding.

TROWBRIDGE.—Plans passed by T.C.:—Garage in Court-street, for the Co-operative Society; extension to butter cold store, Wilts United Dairies; conversion of Trowbridge Savings Bank, for Messrs. Barclay's Bank.

TALGARTH.—The Brecon County Education Committee has decided to provide and erect new school accommodation at Talgarth and Bronllys.

TREDEGAR.—The U.D.C. having constructed the main sewers at cost of £24,000 has now a scheme for embarking upon the subsidiary sewer laying.

TREHERBERT (RHONDDA).—The workmen of Bute, Ynysfelo, Fernhill, Hendremen, Tydraw Collieries, at a mass meeting decided to erect from voluntary levy contributions and Miners' Welfare Grant a hospital in the district.

WAKEFIELD.—Plans passed by T.C.: W. Nudd & Sons, conversion of lock-up shop into two lock-up shops and offices in Westgate and Bread-street, for Messrs. Blooms, Ltd.; Mr. Herbert Dobson, house in Horbury-road, for G. Jackson; Mr. Herbert Dobson, two house in Horbury-road, for W. Wade; Mr. J. P. Firth, lock-up shop in Avondale-street, for H. Goldthorpe; Moore & Crabtree, additional mill to Albion Mills, Ings-road, for Messrs. M. P. Stonehouse; Mr. J. P. Firth, sheds, warehouse, &c., to Balne-lane Mills, Silcoates-street, for Messrs. Harold Holdsworth & Co., Ltd.

WEST PEMBROKESHIRE.—A new station at Heathfield, West Pembrokeshire, on the main line to Fishguard, is to be erected by the Great Western Railway Co. for dealing with passenger, parcels, goods, and live stock traffic, and improved cattle pen accommodation will be provided at Fishguard.

WEYMOUTH.—Plans passed by T.C.: Garage, Old Castle-road, for Mr. E. Denton; alterations to premises, corner of St. Edmund and Marden-streets, for Mr. G. A. Andrews; shop front, &c., 13, Lennox-street, for Mr. G. A. Andrews; house, Dorchester-road, Mr. S. A. Jackson, for Mr. P. E. Dawson; conversion of 131, Dorchester-road into flats, Mr. A. E. Whettam, for Mr. E. G. Hurd-Wood; alterations, Marden-street, Messrs. S. Jackson & Son, for Mr. E. Barlow; store, "The Cottage by the Sea," Messrs. S. Jackson & Son, for Mr. G. Plumpton-Smith.

WOLVERHAMPTON.—Plans passed by T.C.: Villiers Engineering Co., Ltd., hardening shop, Marston-road; A. J. Stevens & Co., experimental department, Graiseley Hill; A. L. Caddick, brewhouse, &c., 10 and 11, Bond-street; Trustees, Primitive Methodist Church, church and school, Willenhall-road; T. Mackie & Son, drainage Richmond-road; Mrs. N. Richards, house, Jeffcock-road; K. H. Smith, semi-bungalow, Finchfield-gardens, Finchfield-road; W. Withers, two houses, Stubbs-road; T. A. E. Fletcher, bungalow, Carlton-road; T. Davis, two houses, Marchant-road; M. A. Boswell, ten pairs of houses, Crowther-road; the Executors of Chas. Hill, deceased, conversions, Lowe-street; Eadie Towers & Co., 11 houses, Oaklands Estate, Penn and Oaklands roads; Mr. Grove, additions, 150, Hilton-street; A. J. Stevens & Co., Ltd., saw mill, Lower Walsall-street.

WORTHING.—Plans passed by T.C.: House, Salisbury-road, for A. Adams; two dwelling houses, Gannon-road, H. M. Potter, for A. Hayler; house, Georgia-avenue, J. E. Lund, for B. W. Grantoff; house, Reigate-road, E. W. Sparks, for F. J. Simpson; four houses, Bath-road, S. C. Phillips, for Phillips & Co.; additions, 112, Chapel-road, A. M. Butler, for W. E. & F. Wenban Smith; garage, Mill-road, J. E. Lund, for G. Harwood; two houses, Bulkington-avenue, J. E. Lund, for H. A. Webb; house, West-avenue, E. J. Love, for Mrs. Goulbourn; house, shop and garage, Broadwater-street, A. Warner, for P. Marriott; garage, Church-walk, A. Clare, for R. H. H. Ingram; two houses, Ladywell-road, J. E. Lund, for Butler Bros.; house and garage, Marine-parade, D. S. Barclay, for Mrs. A. H. Goring; garage, Gannon-road, for G. Tickner; garage, Liverpool-road, B. Cheal, for Dr. Crabtree; two houses, Pavilion-road, J. E. Lund, for J. Goodman; 67 dwelling houses, fronting Ethelred-road, Athelstan-road, Ethelwulf-road, Peverel-road, and South-street, Tarring, for F. Sandell & Sons; garage, Shelley-road, H. C. Lelliott, for F. C. Heffer; house and garage, Pavilion-road, for E. Kemp; dwelling houses, Ariadne-road, E. J. Lund, for G. Harwood.

FIRES

CHESTER-LE-STREET.—Damage estimated at over £5,000 resulted from a fire which completely destroyed the motor garage and works of Messrs. B. K. Ainger & Sons, Newcastle Bank.

ESCRICK.—The Parish Church of Escrick, near York, has been practically destroyed by fire.

NORWICH.—Fire has almost totally destroyed the cabinet making works of Messrs. Brett & Sons, Ltd., Heigham-street.

Gas Manufacture, Distribution, and Use.

We have received a volume which has been prepared and published by the British Commercial Gas Association especially for the use of the teaching profession. It is divided into four parts, containing blackboard lessons on the manufacture, distribution, and use of gas, and its practical application. At the foot of many of the lessons notes are printed suitable for advanced scientific classes. A copy of the book will be sent, as far as stocks permit, to any teacher who may wish to use the notes for lessons.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him *not later than Tuesday evening.*

* **Denotes accepted.** † **Denotes provisionally accepted.**
‡ **Denotes recommended for acceptance.**
§ **Denotes accepted subject to modifications.**

BIRKENHEAD.—For making up certain passages, for the T.C.:—

*C. L. Warren, Wallasey:	
In Brassey-street	£233 9 0
In Patten-street	155 12 0
In Patten-street	86 12 0

BIRKENHEAD.—Foundations for extension of telpher track at Gas Works, for the T.C.:—

*R. W. Gill, Birkenhead	£200

BIRKENHEAD.—For repairs to roofs of Sessions Court and Central Fire Station, for the T.C.:—

*W. E. Hughes, Birkenhead	£234 6 6

BRADFORD.—For erection of house, Low Austby. Messrs. Empsall & Clarkson, architects and surveyors, 7, Exchange, Bradford:—

Mason and Bricklayer—
J. F. Leach Bradford.
Carpenter and Joiner—
J. Hobson & Sons, Windhill.
Plumber and Glazier—
Norris Jowett, Bradford.
Plasterer and Concretor—
A. Firth & Sons, Yeadon.
Slater—
Pickles Bros., Leeds.
Painter—
W. Hudson, Ilkley.

BROMLEY.—For extension of sewer at Chelsfield-road, St. Mary Cray, for the R.D.C.:—

*London and County Public Works, Ltd.	£352 10 6

CHEADLE.—For construction of works for the supply of water to Cheddleton, Caverswall, and Consall, for the R.D.C. Messrs. Willcox & Raikes, 63, Temple-row, Birmingham:—

Henry Osman & Co., Southampton	£48,357 4 0
The Foundation Co., Ltd., London	46,863 18 10
J. J. Blackburn, Manchester	46,500 0 0
George Law, Kidderminster	42,777 0 0
Geo. Slade & Co., Ltd., London	42,158 9 0
Sanders & Torrance, Stoke-on-Trent	41,943 17 10
The Unit Construction Co., Ltd., Birmingham	41,597 2 6
William Wilson & Co. (Newcastle), Ltd., Newcastle-on-Tyne	40,793 9 0
Wilson Lovatt & Sons, Ltd., Wolverhampton	40,589 0 0
Wm. Muirhead, Macdonald, Wilson & Co., Ltd., Birmingham	40,443 9 6
W. Lane, Ltd., Cambridge	39,168 0 0
Joseph Cooke, Longport	39,000 0 0
A. H. Price & Co., Nottingham	38,148 0 0
A. W. Wincott, Swansea	38,032 5 0
Roads & Public Works, Ltd., London	37,987 5 6
Lewis & Beck, Birmingham	37,571 8 6
Fred Mitchell & Son, Ltd., Manchester	37,202 18 8
George Bell & Sons, Ltd., Macclesfield	36,920 5 4
Timothy Patrick, Bradford	36,000 0 0
Wm. Withers, Bilston	35,625 0 0
James Byrom, Ltd., Bury	34,850 0 0
H. Middleton, Newnham-on-Severn	34,734 19 0
John Taylor & Son, Stoke-on-Trent	34,210 7 10
Crawford Bros., Nuneaton	34,085 15 1
Geo. Stow & Co., Ltd., Newport	33,905 12 11
W. H. Rogers, Wolverhampton	33,900 0 0
*M. A. Boswell, Wolverhampton	33,765 9 6

CHETTISHAM.—For erection of a pair of brick and slated cottages and farm buildings, for the Isle of Ely C.C. Mr. R. S. W. Perkins, County Architect, Downham-road, Ely:—

*Burgess & Vail, Ely	£979

CROYDON.—For construction of underground conveniences at Tamworth-road, for the T.C.:—

*E. A. Smith, Croydon	£3,349

DEARNE VALLEY.—For construction of light railway connecting Bolton-on-Dearne, Wombwell, Wath, and Thurnscoe:—

*Consolidated Construction Co., London	£200,243

DONCASTER.—For doubling tramway track at Balby Bridge, for the T.C.:—

*G. Percy Trentham, Ltd.	£1,292 6

GILLINGHAM.—For erection of Sunday school in Nelson-road, for the Trustees of the Primitive Methodists. Mr. E. J. Hammond, architect, 21, Balmoral-road, Gillingham:—

G. E. Wallis, Maidstone	£3,857 0
E. J. Goodwin, Gillingham	3,803 11
J. T. Vickery, Gillingham	3,580 0
Norman Smith & Sons, Maidstone	3,468 8
A. V. Stinton, Rainham	3,306 0
W. F. Blay, Dartford	3,189 0
C. E. Skinner, Chatham	3,175 0
Naylors, Ltd., Battersea	3,165 0
A. G. Webb, Rochester	3,070 0
G. Gates & Sons, Frindsbury	2,998 0
*A. E. Tong, Gravesend	2,894 0

GUILDFORD.—For erection of 25 pairs of houses at Guildford-park, for the Borough of Guildford :—

	Per pair.
S. C. Moss, Southend	£900 0 0
W. Bullen & Son, Guildford	848 0 0
Burnand & Pickett	830 0 0
Guest & Goodall, Ltd., Ascot	817 18 1
T. Swayne & Son, Guildford	799 0 0
W. T. Revitt, Olney	780 8 0
W. T. Champion & Son	771 0 0
Thos. T. C. Jones, S. Farnborough	760 0 0
Y. J. Lovell & Son, Marlow	760 0 0
Thos. Higgs, Guildford	759 0 0
H. J. Webb, Barnsbury	751 0 0
National Guild Building Society, Ltd.	750 0 0
Pool & Sons, Hartley Wintney	750 0 0
H. G. & A. Osman, Ltd., Oxshott	746 14 0
E. Organ & Son, Oxford	740 0 0
The West Surrey Building Trades' Employers' Association	705 0 0
F. J. Privett, Haslemere	699 0 0
W. J. Simms, Sons & Cooke, Ltd.	690 0 0
W. Alban Richards & Co., Ltd., London	670 0 0
Unit Construction Co., Ltd., London	649 0 0
Grove & Holt, Guildford	615 0 0

HALIFAX.—For erection of 32 houses on Wakefield-road site, for the T.C. :—

*Smith Bros. (Burnley), Ltd. £12,896

HALIFAX.—For erection of 54 brick-faced red-tiled houses on Boothtown site, for the T.C. :—

*Smith Bros. (Burnley), Ltd. £19,162

HALIFAX.—For sewage work connected with houses at Boothtown, for the T.C. :—

*C. Wade, Halifax £1,674 5 9

HALIFAX.—For electrician work at houses on Boothtown site, for the T.C. :—

*Higginbotham & Sons, Bradford £378

HALIFAX.—Supply of motor wagon weighbridge, &c., to the T.C. :—

*Ashworth, Son & Co. £389 10

HASWELL.—For painting and renovation of Council Schools, for the County of Durham Education Committee. Mr. M. Anderson, District Education Office, Council School, Haswell :—

South Hetton Council School, No. 104—

W. Austin & Sons, Sunderland	£315 0 0
Chas. H. Snowden, Sunderland	296 0 0
Stokell, Ltd., West Hartlepool	253 0 0
Wm. Hartley & Son, Sunderland	252 10 0
Jas. Burdon, Ltd., West Hartlepool	229 19 6
Wray & Co., Ltd., West Hartlepool	217 10 0
E. M. Tweddle, West Hartlepool	189 8 0
W. S. Hetherington & Sons, Newcastle	175 0 0
James Petch, Easington-lane	173 10 0
*J. S. Grabham, Sunderland	138 10 0

Haswell Council School, No. 302—

T. B. Moore, Easington-lane	£340 0 0
W. Austin & Sons, Sunderland	319 0 0
W. Hartley & Son, Sunderland	280 0 0
J. S. Grabham, Sunderland	280 0 0
C. H. Snowden, Sunderland	275 0 0
E. M. Tweddle, West Hartlepool	249 15 0
James Burdon, West Hartlepool	232 0 0
Stokell, Ltd., West Hartlepool	225 0 0
Haswell Co-operative Society, Ltd., Haswell	225 0 0
W. S. Hetherington & Sons, Newcastle	195 0 0
*James Petch, Easington-lane	184 15 6
Wray & Co., Ltd., West Hartlepool	180 0 0

Deaf-hill Council School, No. 218—

Jas Burdon, Ltd., West Hartlepool	£200 0 0
*Stokell, Ltd., West Hartlepool	192 15 0

Trimdon Foundry Junior Boys' School, No. 356—

Jas. Burdon, Ltd., West Hartlepool	£65 0 0
W. E. Kay, Trimdon Coll	60 0 0
*Stokell, Ltd., West Hartlepool	52 0 0

Shotton Council Boys' School, No. 367—

W. Hartley & Son, Sunderland	£153 0 0
C. H. Snowden, Sunderland	148 0 0
W. Austin & Son, Sunderland	140 0 0
J. S. Grabham, Sunderland	115 0 0
James Burdon, Ltd., West Hartlepool	115 0 0
Stokell, Ltd., West Hartlepool	107 10 0
E. M. Tweddle, West Hartlepool	105 0 0
*Wray & Co., Ltd., West Hartlepool	95 0 0

HITCHIN.—For (1) providing and laying water mains for Cadicote and Kabley Heath; (2) erection of engine-house and water-towers, for the R.D.C. Mr. A. E. Passingham, Clerk, Council Offices, Hitchin :—

(1)—

Samuel Foster, Bedford	£4,811 15 0
J. Willmott & Sons, Hitchin	3,838 14 2
Arthur Foster, London	3,662 12 8
Ellis & Shaw, Ltd., London	3,630 6 7
T. Wood & Son, Luton	3,465 16 0
Thomas & Edge, Woolwich	3,391 0 0
T. Raban & Sons, Baldock	3,272 0 0
John Mowlem & Co., Ltd., London	3,180 10 1
D. C. Pearce, Letchworth	2,983 0 0
John Ray, Letchworth	2,930 8 7
Turner & Payne, London	2,887 0 0
F. R. Hipperson, London	2,819 14 7
George Roberts, Hertford	2,733 4 11
George Greasley, Leicester	2,697 4 8
W. Lane, Ltd., Cambridge	£2,654 2 6
A. W. Sharp, St. Albans	2,625 9 4
M. & F. O. Foster, Hitchin	2,610 15 4
Frost & Carter, Luton	2,527 0 0
T. Carr, Halifax	2,515 19 0
F. Mitchell & Son, Ltd., Manchester	2,495 17 6
W. Thompson, Luton	2,426 3 6
C. F. Ball, Letchworth	2,421 4 5
A. E. Farr, London	2,353 0 0
A. Sykes, Nottingham	2,322 6 7
*F. Newton, Hitchin	2,184 0 0
Hodsons, Ltd., Nottingham	2,151 4 9
F. Troy & Co., Ltd.	2,081 0 0
T. Day & Son, Luton	2,055 0 0

(2)—

J. Willmott & Sons, Ltd., Hitchin	£3,801 8 0
Arthur Foster, London, E.13	3,460 17 1
Thomas Shillitoe, N.7	3,071 0 0
Thomas & Edge, Woolwich	2,889 7 0
T. Raban & Sons, Baldock	2,772 0 0
John Ray, Letchworth	2,691 10 0
C. Miskin & Sons, Ltd., St. Albans	2,678 0 0
W. Lane, Ltd., Cambridge	2,632 0 0
Turner & Payne, London, N.12	2,609 0 0
C. H. Hunt & Son, High Wycombe	2,555 15 5
F. Newton, Hitchin	2,402 0 0
F. R. Hipperson, London, E.C.2	2,352 3 6
A. E. Farr, London, E.C.3	2,350 0 0
M. & F. O. Foster, Hitchin	2,298 0 0
Frost & Carter, Luton	2,295 0 0
F. Troy & Co., Ltd., N.W.3	2,256 0 0
H. Hurst, Letchworth	2,226 0 0
*Arthur Cole, Ltd., Luton	2,056 0 0
T. Day & Son, Luton	1,782 17 0

Engine house, engine and pump only—

West Bros. & Pettet, Walthamstow	£1,297 13 10

LEEDS.—For tar-paving finish to tennis courts, for the T.C. :

*D. Wood & Co.—8 courts at Roundhay Park	£1,296 15 0
*Hugh M. Kershaw (Keighley), Ltd.—6 courts at Buslingthorpe Recreation Ground	950 0 0
*J. Brook, Ltd.—1 court at New Wortley Recreation Ground	210 0 0

LEEDS.—For re-slating of roofs to cottages at Meenwood Park Colony, for the T.C. :—

*J. Atkinson & Son £103 16

LEEDS.—For supply of 15,000 tons of washed gravel and 10,000 tons of sand, to the T.C. :—

*B. Whitaker & Sons 8s. 6d. per ton

LEEDS.—For supply and fixing of iron fence round pit shafts on Cross Gates Housing Estate, for the T.C. :—

*G. Westmoreland & Son £360 18

LEEDS.—For construction of reinforced concrete roof to Dewsbury-road reservoir, for the T.C. :—

*D. G. Somerville & Co. £4,721

LEEDS.—For erection of (*a*) transformer chamber at Lawnswood, and (*b*) transformer chamber at Cross Gates, for the T.C. :—

*(*a*) H. Atkinson & Sons	£224 0
*(*b*) W. Airey & Son	197 10

LEEDS.—For erection of houses on Cross Gates and Middleton estates, for the T.C. :—

*W. Airey & Son—

No. of Houses.	Type.	Price per House.
Cross Gates 42	"A"	£288
8	"C"	£318
Middleton 50	"A"	£288

LEEDS.—For installation of electric light at Meerwood Park Colony, for the T.C. :—

*S. Dixon & Sons £219 12 2

LIVERPOOL.—For cleaning and painting, &c., Lord Mayor's stables, for the T.C. :—

*E. Jones, Ltd., Liverpool £125 4 6

LIVERPOOL.—For painting at Lark-lane public offices, for the T.C. :—

*R. H. Green, Garston £107

LIVERPOOL.—For erection of Police Club-house in Prescott-road, for the T.C. :—

*Brown & Backhouse, Liverpool £3,930

LIVERPOOL.—For redecorating St. George's Hall, for the T.C. :—

*T. & S. Bacon £1,658

LIVERPOOL. For painting certain offices in the Municipal Offices, for the T.C. :—

*H. E. Cubley £719

LIVERPOOL.—For construction of paddling pond at Sefton Park, for the T.C. :—

*Turner & Moss, Liverpool £760

LIVERPOOL.—For construction of an open-air swimming bath, dressing boxes, &c., in Stanley Park, for the T.C. :—

*W. Spenser, Aintree £4,573 10

LIVERPOOL.—For asphalting and drainage at Shell Park, for the T.C. :—

*W. R. Tinniswood, Liverpool £3,786 7 6

LONDON.—For supply of 5,000 ft. super. of sawn Yorkshire or Lancashire stone paving, to the Lambeth B.C. :—

*T. Radcliffe £8 15s. 6d. per 100 ft. super.

LONDON.—For maintenance of wood block paving of roadway of Southwark Bridge for six years, for the City Corporation :—

*Improved Wood Pavement Co.:
9½d. per yard (£239 6s. 10½d. per annum).

LONDON.—For supply and laying of bituminous paving in Paris-street, Little Paris-street, Sudbury-street, Crozier-street and Stangate-street, for the Lambeth B.C. :—

*Highways Construction Co.:
At 10s. 2d. per yard super. and four years' free maintenance.

LONDON.—Repairs and decorations to Observation and Separation Wards Block, St. John's-road Institution, for St. Mary Islington Board of Guardians. Mr. Edmund J. Harrison, architect :—

E. Jackson, Stepney	£973 10
Stevens & Son, Highgate	916 0
Fred Cousins, Holloway	798 0
Myall Bros., Ilford	680 0
W. H. Sawyer & Son, Brixton-hill	669 0
H. Mather, Islington	667 0
S. Shaw, Barnsbury	661 0
Whitbys, London	644 0
A. H. Inns, London	597 0
A. C. Mackinley, Holloway	575 16
H. C. Morgan, London	523 0
Stoneley & Co., Forest Gate	462 0
S. T. Wright, Kennington	420 0
*J. A. Hunt, Ltd., Highgate	383 0
R. Haslam & Son, Woolwich	365 10

LOUGHBOROUGH.—For construction of storm-water sewers (1) Derby-road, Station-street, Paget-street, Leopold-street, Oxford-street, and Havelock-street; (2) Edward-street, Lisle-street, and Grange-street, for the T.C. Mr. A. H. Walker, Borough Surveyor, Town Hall, Loughborough :—

A. Sykes, Nottingham	£1,901 5 9
Hodsons, Ltd., Nottingham	1,825 17 8
W. Moss & Sons, Ltd., Loughborough	1,820 0 0
T. Barker & Sons, Loughborough	1,815 0 0
A. Faulks, Loughborough	1,800 0 0
Hussey & Egan, Birmingham	1,668 1 0
A. E. Greatorex, Long Eaton	1,666 0 0
*A. Waddington & Son, Sheffield	1,617 17 0

METROPOLITAN ASYLUMS BOARD.—The following tenders are recommended for acceptance by the Metropolitan Asylums Board :—

Various institutions—Weighing machines for boiler houses—

	Size 42 in. by 42 in. (For Infectious and Mental Hosps.)	Size 36 in. by 36 in. (For Tuberculosis Institutions.)
*H. Pooley & Sons, Ltd., E.C.	*£44 0 0	£43 0 0
*Ashworth, Son, & Co., E.C.	45 10 0	*42 10 0
S. Denison & Son, Ltd., Leeds	51 0 0	50 0 0
W. Hodgson & Sons, Manchester	50 0 0	45 0 0
J. Spencer & Co., Ltd., Manchester	56 0 0	52 0 0
W. & T. Avery, Ltd., E.C.	80 0 0	76 0 0
Whessoe Foundry & Engineering Co., Ltd., Darlington	85 0 0	82 0 0

North Eastern Hospital—Repairs to roofs of temporary buildings—

G. Ellis & Co., Ltd., E.C.	£814 11 8
W. J. Cearns, Stratford, E.	717 0 0
Norton Bros. & Co., Ilford	620 0 0
F. Bush, Walthamstow	445 11 8
Worman & Hussey, W.	443 0 0
J. Darch, Ltd., E.C.	440 0 0
Croggon & Co., Ltd., E.C.	430 0 0
H. A. Thomas & Son, S.E.	425 0 0
G. Corbett, Fulham	415 16 0
W. E. Thomas & Co., Ltd., S.W.	400 0 0
F. L. Wilmott, Leyton, E.	381 10 0
J. Harrison & Co., Camberwell	375 0 0
†Arding & Hobbs, Ltd., S.W. 11	373 0 0
S. E. Mitchell, East Ham	(Informal)

Western Ambulance Station—Installation of petrol interceptor and drainage work—

H. J. Edgar, Lancaster Gate, W.	£260 0 0
W. Lilly & Co., S.W.	238 0 0
Jones Bros., Streatham	209 0 0
†L. Kazak, Hampstead	145 0 0

Brook Ambulance Station—Ditto—

J. S. Fenn, Woolwich	£247 12 0
Eaglen Bros., Lee	235 0 0
Chappell Bros., Balham, S.W.	230 0 0
Douglass, Halse & Co., Ltd., Woolwich	213 0 0
†H. A. Thomas & Son, East Dulwich	207 0 0

Eastern Ambulance Station—Ditto—

Barrett & Power, Hackney	£214 0 0
J. Darch, Ltd., E.C.	173 0 0
†W. S. Sharpin, Bow	149 10 0

South-Eastern Ambulance Station—Ditto—

J. S. Fenn, Woolwich	£220 17 0
J. Darch, Ltd., E.C.	199 0 0
Eaglen Bros., Thornhill Works, Lee	193 0 0
H. A. Thomas & Son, Dulwich	190 0 0
†Douglass, Halse & Co., Ltd., Woolwich	161 10 0

South-Western Ambulance Station—Ditto—

H. J. Edgar, Lancaster Gate, W.	£219 0 0
Jones Bros., Streatham	203 0 0
W. Lilly & Co., S.W.	200 0 0
†Chappell Bros., Balham, S.W.	180 0 0

NEW ROMNEY.—For repairs and redecorating at the Assembly Rooms, for the T.C. Mr. W. Lamscraft, Town Clerk, Town Hall, New Romney :—

G. A. Franks, Lydd	£159 17 6
S. Southerden, New Romney	120 0 0
*W. T. Savage, New Romney	95 4 2½

NORTHAMPTON.—For T.C. :—
Four B3 type houses with shop fronts—
Thomas Higgs £1,716
Eight B3 type houses—
G. F. Sharman 3,224

OSWESTRY.—For construction of three filter beds and central sand-washing depot, &c., at Oswestry, for the Liverpool T.C. :—
*John Dickinson & Co. (Bolton), Ltd... £36,779

OXFORD.—For reconstruction of Bulstake Bridge, for the T.C. :—
*H. & W. Stewart & Co. £7,205 10 11

PLYMOUTH.—For construction of two swimming baths at Bullock's Dock, Devonport, for the T.C. :—
*F. J. Stanbury..... £17,724

ROMFORD.—For erection of operating theatre at hospital, for the U.D.C. :—
*Myall Bros., Southend..... £1,787

SKYE.—For erection of a church at Kilmuir. Mr. J. A. H. Mackenzie, architect, Portree :—
Masons—
*James Macdonald, Portree.
Thomas Macfarlane, Portree.
H. Macoinish & Son, Inverness.
Joiners—
*Mackenzie & MacLean, Portree.
D. MacCrimmon, Portree.
Slaters—
*James Gray & Son, Inverness.
John Reid & Son, Inverness.
Plumbers—
*John A. Clark, Portree.
James Gray & Son, Inverness.
Painters—
*Donald MacRaild, Kilmuir, Skye.
John Bain & Son, Portree.
Wm. Ross & Son, Inverness.

SOWERBY.—For erection of four houses, for the U.D.C. Mr. J. Eastwood, Surveyor, Council Offices, Sowerby Bridge :—
Masons' and Bricklayers' Work—
C. Longbottom, Sowerby Bridge.
Carpenters' and Joiners' Work—
W. H. Leah & Son, Halifax.
Slaters' and Plasterers' Work—
H. Castle & Co., Brighouse.
Plumbers' and Glaziers' Work—
Albert Booth, Sowerby Bridge.
Painters' Work—
Hitchen & Thomas, Sowerby Bridge.

SOWERBY BRIDGE.—For alterations to abutments for new bridge over canal, for the U.D.C. Mr. J. Eastwood, Surveyor, Council Offices, Sowerby Bridge :—
W. Parker, Sowerby Bridge.

STAINLAND.—For laying 250 lin. yds. of 15 in. stoneware pipe sewer, &c., for the U.D.C. Mr. H. E. Moses, Surveyor, Council Offices, Stainland :—
*W. Waring & Sons, Huddersfield £541

STRETFORD.—For road works at Northumberland-road, for the U.D.C. :—
*Smith & Briggs, Ltd..... £480

STRETFORD.—For the erection of canteen and conveniences at Trafford power station, for the U.D.C. :
*Smith & Briggs £650

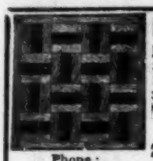
WAKEFIELD.—For erection of clinic and alterations at Clayton Hospital, for the T.C. :—
*Exors. of H. Blackburn, Wakefield.... £331

WHITBY.—For carrying out Spa improvement scheme, for the T.C. :—
*Porteous & Co., Middlesbrough £6,950

YEOVIL.—For dressing yard with reinforced concrete pits, for Messrs. Ivelnan, Ltd., glove manufacturers, Victoria-road, Yeovil. Mr. Arthur J. B. Abbott, P.A.S.I., M.R.S.I., architect, Vicarage-street, Yeovil :—

E. Palmer, Yeovil	£1,279	5	4
Theo. Conway, Ltd., Weymouth	1,257	0	0
F. R. Bartlett, Yeovil	1,189	0	0
Bird & Pippard, Yeovil	1,050	0	0
R. G. Spiller, Sherborne	1,049	0	0
Parsons & Sons, Crewkerne	1,023	8	1
J. W. & H. Childs, Yeovil	999	0	0
*R. Butcher & Son, Warminster	937	0	0

YORK.—For construction of sewers, &c., at Heworth, for the T.C. Mr. F. W. Spurr, City Engineer, York :—
*Squires & Sons, Selby £1,936 10 2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